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ABSTRACT

This document contains abstracts of ERIC-processed instructional materials which would be useful for teachers involved in cooperative type vocational education. There are 189 abstracts covering 96 different occupations. A subject index provides the page numbers of the abstracts pertaining to a particular subject or occupation. In addition to the abstracts, the report includes descriptors or key ideas for each document and information on where the document can be obtained. (BC)

ED037582

ABSTRACTS OF INSTRUCTIONAL MATERIALS FOR STUDENT USE IN VOCATIONAL COOPERATIVE EDUCATION.

A Compilation of Materials Abstracted by
The VT-ERIC Clearinghouse.

October 1969

Compiled for Teacher Use
by
Robert H. White

RCU // **SDI**

Research Coordinating Unit

Selective Dissemination of Information

Research Coordinating Unit
for Vocational Education
Clemson University, S. C.

In Cooperation With

Office of Vocational Education
State Dept. of Education
Columbia, S. C.

VT010767

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FOREWORD

The primary purpose of this publication is to provide easy access to ERIC processed instructional materials that may be useful in cooperative type vocational education. The development of the Educational Resources Information Center (ERIC) has progressed to the extent that a number of individual study materials related to specific subjects or occupational areas are now available to educators. To facilitate usage of the ERIC system, this publication has been prepared to overcome unfamiliarity with ERIC and/or a general unavailability of ERIC indexes. Through this volume, it is hoped that teachers concerned with cooperative vocational programs can have a greater selection of good, pedagogically oriented individual study materials for use by their students.

The various forms in which the abstracts are given reflects the progress and continued development of the VT-ERIC Clearinghouse. The materials were taken as published in the currently available issues of *Abstracts of Instructional Materials in Vocational and Technical Education* (AIM), from the first issue (Fall, 1967) through the Spring 1969 issue. This abstract series is published by the ERIC Clearinghouse, The Center for Vocational and Technical Education, The Ohio State University, Columbus, Ohio. Additional information concerning ERIC and this clearinghouse is given in each issue of AIM.

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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ABSTRACTS 1

INTRODUCTION

Types of Materials

The abstracts contained in this publication have been selected as abstracts of materials that should be useful to students involved in cooperative type vocational education. This reference is not intended for student use, however, but as an additional reference from which teachers may select relevant individual student study materials. It will not replace nor supersede any references the teacher may presently be using. The items have been selected without regard as to traditional vocational areas, and are listed by types of occupations or job categories.

RCU/SDI

For several months, the Research Coordinating Unit for Vocational Education (RCU), located at Clemson University, has gradually been developing an information dissemination capacity. This RCU/SDI activity (Research Coordinating Unit-Selective Dissemination of Information) is aimed at helping vocational education personnel obtain current information from several information systems, including ERIC. At irregular intervals, abstracts or announcements of available information selected for specific audience groups are distributed to persons in those groups. Further, the facilities of the RCU have been dedicated to helping persons obtain copies of documents that are of particular interest. This publication represents an attempt to assist teachers to locate relevant student study materials available through the ERIC system.

Microfiche

It may be noted that the term microfiche, abbreviated MF or m/f, is used throughout. Microfiche is the name of the medium used by the ERIC system to economically store and transmit the contents of original documents. Essentially it consists of microfilm arranged on a 4 inch by 6 inch sheet, and may be read by use of a relatively inexpensive microfiche reader. Teachers and secondary school students will have no difficulty in using any of the relatively simple microfiche readers. A modest investment in microfiche readers can be expected to pay dividends to a school system as increasing amounts of educational materials from diverse sources become available in this form.

How To Use This Publication

As stated previously, this publication is intended for teacher, not for student use. To locate abstracts of possibly helpful materials, and to obtain the materials, the suggested sequence would be as follows:

1. Check the subject index to locate the occupation or subject most closely corresponding with the subject the student needs to study.
2. Turn to the appropriate page(s) and review all of the abstracts pertaining to that subject or occupation and note the VT numbers of desired material(s).
3. Turn to the "Availability List" and locate the identified VT numbers. Record the corresponding ED numbers for those documents.
4. Order the selected items according to the directions given under "Materials Availability" below.

Materials Availability

The materials cited in this publication are items abstracted by the ERIC Clearinghouse for Vocational-Technical Education (VT-ERIC) and processed into the ERIC system. All of the abstracted materials are on the "Availability List", pages viii-xii. The materials are all available to educators, although the precise method of obtaining them varies according to the preference of the producing agency. The three general categories of availability for these materials are given below.

1) Items with an ED number listed under "ED Number of Individual Items" are available from the ERIC Document Reproduction Service (EDRS). Microfiche, or in some cases hard copy reproductions, can be purchased from EDRS according to the most recent EDRS price schedule. An easier method would be to contact the RCU to quickly obtain free microfiche copies of these items.

2) Documents that have an ED number listed under the third column, entitled "ED Number of VT-ERIC Set", can be provided in the form of microfiche by agencies equipped to reproduce microfiche and only by agencies with access to the VT-ERIC microfiche sets. In South Carolina, the RCU has this capability and is willing to perform this service.

3) Some of the items do not have an ED number, but are checked in the column "Item Available Only From Source Given In The Abstract." Readers who desire materials so designated will find it necessary to purchase these materials from the source and at the price indicated within the abstract. The RCU cannot supply copies of any of these materials.

The Research Coordinating Unit will supply microfiche copies of ED designated documents at no cost to the user in response to any reasonable request. The normal time to duplicate and mail out requested microfiche is two or three working days. Please provide the VT number of requested materials along with your return address and indication of your vocational area, e. g., trade and industrial, distributive education, etc.

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AVAILABILITY LIST

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VT 000 005			X
VT 000 101	See Nov. 69 RIE*		
VT 000 127			X
VT 000 139			X
VT 000 140			X
VT 000 141			X
VT 000 144			X
VT 000 159			X
VT 000 171			X
VT 000 174			X
VT 000 182			X
VT 000 184			X
VT 000 186			X
VT 000 188			X
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VT 000 216			X
VT 000 220			X
VT 000 223			X
VT 000 226			X
VT 000 229			X
VT 000 232			X
VT 000 235			X
VT 000 241			X
VT 000 244			X
VT 000 247			X
VT 000 250			X
VT 000 253			X
VT 000 262			X
VT 000 265			X
VT 000 266			X
VT 000 290			X

* The November 1969 issue of *Research in Education* (RIE), the primary ERIC abstract publication, was not available at time of printing. See this issue for the ED number of the Spring 1969 AIM microfiche set.

Item Number	ED Number of Individual Item	ED Number of VT-ERIC Set	Item Available Only From Source Given in Abstract
VT 000 291			X
VT 000 293			X
VT 000 296			X
VT 000 297			X
VT 000 300			X
VT 000 303			X
VT 000 304			X
VT 000 323			X
VT 000 325			X
VT 000 359	ED 013 289		
VT 000 364	ED 013 871		
VT 000 440			X
VT 000 443			X
VT 000 589			X
VT 000 689	ED 016 025		
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VT 000 698		ED 017 746	
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VT 000 789			X
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VT 000 947		ED 020 442	
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* The November 1969 issue of *Research in Education* (RIE), the primary ERIC abstract publication, was not available at time of printing. See this issue for the ED number of the Spring 1969 AIM microfiche set.

Item Number	ED Number of Individual Item	ED Number of VT-ERIC Set	Item Available Only From Source Given in Abstract
VT 001 195	ED 013 893		
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VT 001 464			X
VT 001 469			X
VT 001 628		ED 020 442	
VT 001 671		ED 015 349	
VT 001 674			X
VT 001 685			X
VT 001 837		ED 015 349	
VT 001 872	ED 012 782		
VT 001 876		ED 017 746	
VT 001 895			X
VT 002 035		ED 015 349	
VT 002 036		ED 015 349	
VT 002 038		ED 017 746	
VT 002 040		ED 013 339	
VT 002 042		ED 020 442	
VT 002 043		ED 017 746	
VT 002 047		ED 015 349	
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VT 002 054		ED 015 349	
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VT 002 376	ED 013 929		
VT 002 499			X
VT 002 612		ED 020 442	
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VT 002 795	ED 014 559		
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VT 002 857		ED 013 339	
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VT 005 685	ED 021 102		
VT 005 846		ED 028 305	
VT 007 139		See Nov. 69 RIE	
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VT 007 270	ED 023 919		
VT 007 524		See Nov. 69 RIE	
VT 007 714		See Nov. 69 RIE	
VT 007 946		See Nov. 69 RIE	

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* The November 1969 issue of *Research in Education* (RIE), the primary ERIC abstract publication, was not available at time of printing. See this issue for the ED number of the Spring 1969 AIM microfiche set.

Abstracts

ADVERTISING

VT 000 182

Distributive Education Advertising Manual.

Clarke, Margaret
Texas Univ., Austin. Dept. of Distributive Education
Texas Education Agency, Austin. Distr. Educ. Service

Pub Date - 63
DOCUMENT NOT AVAILABLE FROM EDRS 119p.

*TEXTBOOKS, *STUDY GUIDES, *DISTRIBUTIVE EDUCATION, HIGH SCHOOLS, POST SECONDARY EDUCATION, *INDIVIDUAL INSTRUCTION, *ADVERTISING,

Fundamental principles and practices of advertising are presented in this manual for students employed in retail, wholesale, and service-selling establishments. It was written by a coordinator with background experience in the field of specialty principally for use in directed individual instruction, but it may also supplement basic instruction in the sales promotion area. The main sections of the manual are Why We Advertise, The Newspaper as an Advertising Medium, Advertising Layout and Copy Writing, and Other Advertising Media. The sections contain 29 unit topics. Each unit includes information, objectives of the assignment, explanation, questions, and projects. This document is available for $3.00 from Instructional Materials Laboratory, Distributive Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. An answer book (VT 000 183) is also available for $1.50 from the same source. (MM)

AGRICULTURAL MACHINERY

VT 001 140 ED 013 892

Agricultural Machinery - Power. (Teachers Copy).

Venable, Benny Mac * Hill, Durwin

Texas Agr. and Mechanical Univ., College Station

66

EDRS Price MF-$0.45 HC-NOT AVAILABLE FROM EDRS 337p.

*VOCATIONAL AGRICULTURE, *COOPERATIVE EDUCATION, *AGRICULTURAL MACHINERY OCCUPATIONS, *STUDY GUIDES, TESTS, ANSWER KEYS, *AGRICULTURAL MACHINERY, The purpose of this document is to provide a study guide for students preparing for agricultural machinery occupations in a vocational agriculture cooperative education program. The material was designed by subject matter specialists on the basis of state advisory committee recommendations, tried in operational programs, and refined by a teacher. Topical units in the course include -- (1) Introduction, (2) Internal Combustion Engines, (3) Lubricants and Lubricating Systems, (4) Fuel Systems, (5) Cooling Systems, (6) Electrical Systems, and (7) Hydraulics. Unit materials include information sheets, assignment sheets, assignment answer sheets, topic tests, and topic test answers. The material is suitable for reading and as a guide to study for students who are employed, male or female, and 16 to 20 years old. The course requires 175 periods of 50 minutes. Other textbooks, bulletins, and commercial data are necessary and are specifically recommended on the assignment sheets. The document is in printed and looseleaf form. This document is available in limited numbers for $4.00 each from Agricultural Education Teaching Materials Center, Texas Agricultural and Mechanical University, College Station, Texas, 77843. (JM)

VT 000 364 ED **013 871**

Combines and Combining.

Ridenour, Harlan E.

Ohio State Univ., Columbus. Dept. of Agr. Education

65

EDRS Price MF-$0.18 HC-NOT AVAILABLE FROM EDRS

*STUDY GUIDES, *AGRICULTURAL MACHINERY, *VOCATIONAL AGRICULTURE, HIGH SCHOOLS,

Through the use of this manual, vocational agriculture students with occupational interest in grain farming and custom combine operation may gain knowledge about the basic design and operation of combines. Development by a state curriculum materials director included consultation with engineers, trial, and revision. Objectives are stated in terms of behavioral objectives and based on student needs. Four units of instruction are covered -- (1) What is the Value of Doing a Good Job of Combining, (2) Basic Design of the Combine, (3) Operation of the Combine, and (4) Economics of Owning a Combine. The manual suggests teaching procedures and student experiences which the vocational agriculture teachers could conduct in the classroom, the agricultural mechanic shop, and on field trips to farms and implement dealers. Since the individual features of the different makes and models of combines cannot be included in one publication, operator's manuals for the combines being studied should be made available. A set of thirty 2- by 2-inch color slides with accompanying script, and a test and key for the unit are available. This document is available for $1.00 or in quantity for 75 cents from Ohio Vocational Agriculture Instructional Materials Service, The Ohio State University, 2120 Fyffe Road, Columbus, Ohio 43210. (PA)

VT 005 496
Agricultural Mechanics (Repair-Operation-Services), Student Study Guide.

Alabama State Dept of Educ, Montgomery. Agr Educ Service.
Pub Date - 66
MF AVAILABLE IN VT-ERIC SET. 46p.

*STUDY GUIDES, *VOCATIONAL AGRICULTURE, *AGRICULTURAL MACHINERY OCCUPATIONS, *AGRICULTURAL MACHINERY, AGRICULTURAL ENGINEERING, GRADE 11, GRADE 12,

Study questions and learning activities concerned with repair, operation, and servicing of farm machinery, related equipment, structures, and conveniences are presented for individualized use by high school vocational agriculture students. The guide was designed by a district supervisor with the assistance of a subject-matter specialist and teacher educator. Major unit outlines included are career opportunities in agricultural mechanics, oxyacetylene welding, farm plumbing, farm building and construction, electric motors, painting and wood preservation, farm water systems, operating procedures of an agricultural machinery parts department, agricultural salesmanship, arc welding, hydraulic power transfer systems, tractor tuneup and maintenance, diesel engine systems, and selection of machinery. Each contains questions, suggested learning activities, and references. The time allotment is to be determined by the local instructor. Teachers with general vocational agriculture college training and special shop instructors may use this material with junior and senior boys who have completed 2 years of vocational agriculture. Career opportunities in agricultural mechanics are listed. (WB)

VT 007 714
Business Practices for Agricultural Machinery Dealers. Teachers Guide.

Ohio State Dept. of Education, Columbus. Agricultural Education Service
Ohio State Univ., Columbus. Dept. of Agricultural Education
MF AVAILABLE IN VT-ERIC SET.
Ohio Vocational Agriculture, Instructional Materials Service, The Ohio State University, 2120 Fyffe Road, Columbus, Ohio 43210 ($1.50).
Pub Date - 68 53p.

*TEACHING GUIDES; *AGRICULTURAL MACHINERY OCCUPATIONS; RECORDS (FORMS); *VOCATIONAL AGRICULTURE; *OFF FARM AGRICULTURAL OCCUPATIONS; *BUSINESS SKILLS; GRADE 11; GRADE 12

Developed by an individual author in consultation with vocational agriculture teachers, state supervisors, and industrial personnel, this teaching guide is for use by teachers of vocational agriculture with junior and senior students studying agricultural machinery occupations. This reference provides guidance to teachers in directing the individual study of students who are obtaining work experience at a farm machinery dealership. The four sections are: (1) Introduction to Business Practices for Agricultural Machinery Dealers, (2) The Parts Department, (3) Service Shop, and (4) Equipment Sales. A supplement to the student manual contains a parts catalog and price list. The student reference is available as VT 007 713. (DM)

VT 002 275

Mowers.

Ohio State Univ., Columbus. Dept. of Agricultural Educ.

Ohio State Dept. of Educ., Columbus. Vocat. Agr. Service

66

DOCUMENT NOT AVAILABLE FROM EDRS 65p.

*VOCATIONAL AGRICULTURE, *STUDY GUIDES, *AGRICULTURAL MACHINERY, *HARVESTING, *FORAGE CROPS, HIGH SCHOOLS, FARMERS,

A vocational agriculture teacher revised an earlier study guide developed by an agricultural engineer after he consulted educators and engineers and used the material with students. Sections in the study guide include (1) Value of good mowing, (2) Mower types and designs, (3) Cutting principles, (4) Principles of the law of moments, and (5) Mower register. Requiring 10 hours, the material is for use with vocational agriculture students interested in farming. Recommended supplemental materials include a book, "Selecting and Maintaining Field Mowers," mowers, and operator's manuals. This document is available for 75 cents from Ohio Vocational Agriculture, Instructional Materials Service, The Ohio State University, 2120 Fyffe Road, Columbus, Ohio 43210. (JM)

AGRICULTURAL PRODUCTION

VT 005 487

Agricultural Products (Processing-Marketing-Inspection-Services), Student Study Guide.

Alabama State Dept of Educ, Montgomery. Agr Educ Service.
Pub Date - 66
MF AVAILABLE IN VT-ERIC SET. 35p.

*STUDY GUIDES, *VOCATIONAL AGRICULTURE, *OFF FARM AGRICULTURAL OCCUPATIONS, *AGRICULTURAL PRODUCTION, GRADE 11, GRADE 12,

Questions, suggested learning activities, and references concerned with the principles and operations involved in preparing agricultural products for use or for sale are presented for individualized use by high school vocational agriculture students. The material was developed by a subject-matter specialist with the assistance of a teacher educator and a specialist in food processing and technology. Major units include (1) Principles of a Free Economy, (2) Understanding Economic Factors that Affect Farm Business, (3) Marketing Grain, (4) Marketing Beef Cattle, (5) Governmental Regulation of Livestock Marketing, (6) Marketing Fruits and Vegetables, (7) Marketing Forest Products, (8) Processing Fruits and Vegetables for Market, (9) Wholesale and Retail Meat Processing, (10) Food Processing, (11) Packaging and Protection of Agricultural Products, (12) Storage and Warehousing of Agricultural Products, and (13) Inspection, Grading, Shipping, and Handling of Agricultural Products. The time allotment is to be determined by the local instructor. Vocational agriculture teachers preferably with coursework in food processing may use this material with 11th and 12th grade boys who have completed 2 years of vocational agriculture. A list of employment opportunities in marketing, processing, inspection, and servicing agricultural products is included. A course outline is available as VT 005 486. (WB)

VT 005 499
Agricultural Production (Animal Science-Plant Science-Mechanics-Management), Student Study Guide.

Alabama State Dept of Educ, Montgomery. Agr Educ Service.
Pub Date - 61
MF AVAILABLE IN VT-ERIC SET. 38p.

*STUDY GUIDES, *VOCATIONAL AGRICULTURE, *AGRICULTURAL PRODUCTION, GRADE 11, GRADE 12,

Study questions, suggested learning activities, and references concerned with agricultural production are presented for individualized use by high school vocational agriculture students preparing for farming employment. The material was developed by a subject-matter specialist, a livestock and farm management specialist, and a teacher educator. The units are (1) Employment Opportunities in Agricultural Production, (2) Animal Science, (3) Production Management in Livestock, (4) Plant Science, and (5) Farm Business Management. The time allotment is to be determined by the local instructor. Teachers with general vocational agriculture college training may use this material with 11th and 12th grade boys who have completed 2 years of vocational agriculture and have occupational objectives in production farming. Some employment opportunities in agricultural production are included. A course outline is available as VT 005 498. (WB)

AGRICULTURAL SUPPLY OCCUPATIONS

VT 000 956
Learning Experiences in Agricultural Occupations for Students of Vocational Agriculture, Farm Supplies.

Clemson Coll., S.C. Dept. of Agricultural Education
South Carolina State Dept. of Education, Columbia
Pub Date - Mar64
MF AVAILABLE IN VT-ERIC SET 7p.

*VOCATIONAL AGRICULTURE, *COOPERATIVE EDUCATION, *AGRICULTURAL SUPPLY OCCUPATIONS, *JOB SKILLS, *LEARNING EXPERIENCE, HIGH SCHOOLS,

The purpose of this guide is to assist the vocational agriculture teacher and student in planning and evaluating work experiences in the farm supply businesses. It was developed by a teacher educator for use in a 150-hour placement experience. It contains the things the student must learn to do and the things he must learn about. A list of 89 experiences with feeds, seeds, pesticides, poultry, pets, fertilizers, hardware, advertising, selling, servicing, and records and space to check performance of each are provided. Single copies of this document are available without charge from Agricultural Education Department, Clemson University, Clemson, South Carolina 29631. (JM)

VT 005 500
Agricultural Supplies (Processing-Marketing-Services), Student Study Guide.

Alabama State Dept of Educ, Montgomery. Agr Educ Service.
Pub Date - 66
MF AVAILABLE IN VT-ERIC SET. 23p.

*STUDY GUIDES, *VOCATIONAL AGRICULTURE, *AGRICULTURAL SUPPLY OCCUPATIONS, *AGRICULTURAL SUPPLIES, GRADE 11, GRADE 12,

Questions, suggested learning activities, and references concerned with principles and practices involved in processing, marketing, and servicing agricultural supplies are presented for individualized use by high school vocational agriculture students. The material was developed by an agribusiness and continuing education specialist with assistance from a subject-matter specialist and a teacher educator. The units are (1) Career Opportunities in Agricultural Supplies, Sales, and Services, (2) Relations Between Persons Engaged in Agricultural Sales and Services, (3) Agricultural Salesmanship, (4) Organization and Functions of Agricultural Businesses, (5) Agricultural Business Procedure, (6) Feeds--Sales and Service, (7) Crop, Lawn, and Garden Seeds--Sales and Service, (8) Fertilizers--Sales and Service, (9) Agricultural Chemicals, and (10) Miscellaneous Agricultural Supplies and Small Equipment--Sales and Service. The time allotment is to be determined by the local instructor. Teachers with a general vocational agriculture college training may use this material with 11th and 12th grade boys who have completed 2 years of vocational agriculture and have occupational objectives in agricultural supplies. A list of possible employment opportunities in agricultural supplies is included. A course outline is available as VT 005 501. (WB)

VT 007 946
Agricultural Supplies, Business and Service. Instructor's Guide and Related Class Units.

Ohio State Dept. of Education, Columbus. Agricultural Education Service
Ohio State Univ., Columbus. Dept. of Agricultural Education
MF AVAILABLE IN VT-ERIC SET.
Ohio Vocational Agriculture, Instructional Materials Service, The Ohio State University, 2120 Fyffe Road, Columbus, Ohio 43210 ($5.00).
Pub Date - 67 624p.

*WORKBOOKS; *TEACHING GUIDES; *OFF FARM AGRICULTURAL OCCUPATIONS; AGRICULTURAL SUPPLY OCCUPATIONS; GRADE 11; GRADE 12; *BUSINESS SKILLS; TESTS; ANSWER KEYS; RESOURCE MATERIALS

Developed by an individual author in consultation with vocational agriculture teachers and state supervisory personnel, these student manuals and the accompanying teacher's guide are for use in a high school class emphasizing agricultural supplies, business and service. This guide contains curriculum areas of: (1) Opportunities in Agricultural Occupations, (2) Orientation to Job Training, (3) Billing Merchandise to Customers, (4) Human Relations in Business, (5) Selling and Salesmanship, (6) Business Organization, (7) Credit and Interest Charges, (8) Advertising and Promotion, (9) Taxes, (10) Office Procedures and Records, (11) Marketing Agricultural Products, (12) Transportation and Storage, (13) Inventory and Depreciation, (14) Contracts and Leasing, and (15) Insurance. The teaching guide for each unit contains an introduction, a list of references, the subject material, and unit exams. The student references for each unit contain objectives, areas of study, subject material and references. The student manuals may be used as workbooks. This material was designed for use in a 1-year program for 11th or 12th grade students in comprehensive high schools or area vocational schools. (DM)

VT 005 484
Pre-Professional Agriculture (All Other Agriculture), Student Study Guide.

Alabama State Dept of Educ, Montgomery. Agr Educ Service
Pub Date - 66
MF AVAILABLE IN VT-ERIC SET. 37p.

*STUDY GUIDES, *VOCATIONAL AGRICULTURE, *OFF FARM AGRICULTURAL OCCUPATIONS, AGRICULTURAL CHEMICAL OCCUPATIONS, AGRICULTURAL SUPPLY OCCUPATIONS, PROFESSIONAL OCCUPATIONS, *AGRICULTURE, GRADE 11, GRADE 12,
Alabama, Southeastern United States,

Study questions, suggested learning activities, and references concerned with preparation for entry into professional agriculture fields are presented for individualized study by vocational agriculture students. They were developed by a district vocational agriculture supervisor with assistance from a subject-matter specialist and a teacher educator. Major units include (1) Employment Opportunities, (2) Livestock Production, (3) Crop Production, (4) Chemical Weed Control, (5) Production, Care, and Maintenance of Ornamental Plants, (6) Disease and Insect Control in Plants, (7) Poultry Production, (8) Farm Management, (9) Farm Law and Legal Problems, (10) Salesmanship, (11) Credit and Collections, and (12) Personnel Management. The time allotment is to be determined by the local instructor. Teachers with general vocational agriculture college training may use this material with 11th and 12th grade boys who have completed 2 years of vocational agriculture. (WB)

AUTO BODY REPAIR

VT 001 469

Supervised Study Guide for Auto Body and Fender Repairman.
Navarro, Angel

Texas Univ., Austin. Dept. of Industrial Education
Texas Education Agency, Austin. Industrial Educ. Div.

Jan67

DOCUMENT NOT AVAILABLE FROM EDRS 95p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *AUTOMOBILE BODY REPAIRMEN, MOTOR VEHICLES, HIGH SCHOOLS, *COOPERATIVE EDUCATION,
The related technical information in this guide is for use, on a supervised basis, by juniors and seniors in cooperative training programs in area vocational or technical high schools. It was written by an instructor in a workshop situation under direction of a training specialist and a reviewing committee. Some of the 23 assignment sheets are -- (1) Automobile Frames, (2) Automobile Bodies, (3) Unitized Construction, (4) Safety Precautions in the Body and Fender Shop, (5) Collision, (6) Shrinking and Finishing Metals, (7) Filling, (8) Basic Straightening Procedures and Equipment, (9) Welding and Brazing, and (10) Refinishing and Spot Painting. Each assignment includes subject, aim, introductory information, references, and questions. A progress record form coordinates job and class experiences. The guide was intended to cover 360 hours of directed study or two years on a part-time basis. Unit tests are available in VT 001 468, and answers to assignment sheets and tests are in VT 001 467. Both, with the guide, are available for $4.50 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (EM)

VT 001 837

Auto Body Repair, A Course of Study Designed for Cooperative Part-Time Students Employed in Auto Body and Repair Shops.

Karnes, James B., ed.

Missouri Univ., Columbia. Dept. of Industrial Education
Missouri State Dep of Educ, Jefferson City, Ind Educ Sect

Mar65

DOCUMENT NOT AVAILABLE FROM EDRS 170p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *AUTOMOBILE BODY REPAIRMEN, MOTOR VEHICLES, HIGH SCHOOLS, *COOPERATIVE EDUCATION,

This analysis of job training and related information in this course is for use by secondary or post-secondary students in a cooperative or preparatory trade and industrial program. It was designed by graduate research assistants in cooperation with trade teachers and an advisory committee. Twenty-one assignment sheets cover 157 units and present introductory information, assignment, references, and objective type questions which are keyed to a reference. Job training and related information are coordinated for each assignment. Some assignment sheet subjects are Power Tools and Equipment, Body and Frame Construction, Door Repair, and Refinishing Procedures. Information sheets present additional material on The Auto Body Repair Business, Hazards, Body Repair Procedures, and Job Management and Pricing. The 180 hours of related instruction should be supervised by a qualified coordinator or trade teacher. Progress records for use by the student, employer, and instructor and a bibliography of six references are included. Answers to assignment questions are available in VT 002 033. Answers and this guide are available for $2.00 from Industrial Education, 103 Industrial Education Building, University of Missouri, Columbia, Missouri 65201. (EM)

VT 002 376 ED 013 929

Automobile Body and Fender Repair and Refinishing, A Study Guide and Progression Record in Automobile Body and Fender Repair and Refinishing. (File, no. 316).
Alabama Univ., University. Dept. of Trade and Ind. Educ.

Feb66

EDRS PRICE MF-$0.18 HC-NOT AVAILABLE FROM EDRS 92p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *AUTOMOBILE BODY REPAIRMEN, *MOTOR VEHICLES, GRADE 11, GRADE 12, STUDENT RECORDS, *COOPERATIVE EDUCATION,

Job sheets are used in this individual study guide to direct grade 11 and grade 12 students in cooperative education programs in area vocational or comprehensive high schools. The guide was developed by a state committee of trade and industrial coordinators, subject matter specialists, and teacher educators, and has been used in high school programs for 30 years. The job sheets contain the job title, related study references, questions, and a chart for recording completion of correlated laboratory performances and related references. Trade analysis and progress record forms for teacher and student use include a list of the job sheets and spaces for recording progress on the job and in related study. Also included is a student's daily record form. Time allotment is 1 hour per day for 2 years or 360 hours. A bibliography includes required texts and supplementary references. This document is available for $1.25 from Trade and Industrial Education, Box 2847, University, Alabama 35486. An answer book (VT 002 388) is available for $1.00. (HC)

AUTO MECHANICS

VT 003 112

Auto Mechanics, A Study Guide and Progression Record in Auto Mechanics for Use in a Cooperative Training Program. (File, no. 275).
Alabama Univ., University. Dept. of Trade and Ind. Educ.

Aug65

DOCUMENT NOT AVAILABLE FROM EDRS 131p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *AUTOMOBILE MECHANICS (OCCUPATION), AUTO MECHANICS, *MOTOR VEHICLES, HIGH SCHOOLS, STUDENT RECORDS, *COOPERATIVE EDUCATION,

Designed for use by high school students in a cooperative training program, this guide provides study questions and a form for recording progress through a 111-item auto mechanic trade analysis. It was developed by a committee of trade and industrial coordinators on the state level. Examples of analysis items are Engine Construction, Time the Engine, Repair a Radiator, Balance Wheels, and Check Primary Circuits. A job sheet for each item is keyed to selected references and contains spaces for recording completed job experiences and related readings. The time allotment is 1 hour per day for 2 years. The mimeographed document includes a bibliography of four texts and five references. This document is available for $4.25 from Trade and Industrial Education, Box 2847, University, Alabama 35486. Answers (VT 003 113) are available from the same source. (EM)

VT 007 257
Colucci, Leonard
Wheel and Steering Alignment.

Rutgers, The State Univ., New Brunswick, N.J. Vocational-Technical Curriculum Lab.
New Jersey State Dept. of Education, Trenton. Div. of Vocational Education
MF AVAILABLE IN VT-ERIC SET.
Vocational-Technical Curriculum Laboratory, Rutgers University, 10 Seminary Place, New Brunswick, New Jersey 08903 ($1.50)
Pub Date - Sep68 96p.

*STUDY GUIDES; *TRADE AND INDUSTRIAL EDUCATION; *AUTO MECHANICS (OCCUPATION); *AUTO BODY REPAIRMEN; HIGH SCHOOLS; ILLUSTRATIONS; *TEXTBOOKS; ACHIEVEMENT TESTS
*WHEEL ALIGNMENT

This study guide is for student use in courses treating auto wheel and steering alignment. It was developed by auto body instructors for use in high school vocational courses. There are 34 lessons in these units; (1) Shop Orientation, (2) Types of Suspension Systems, (3) Theory of Wheel Alignment, (4) Alignment Equipment, (5) Caster Angle, (6) Camber Angle, (7) Steering Axis Inclination, (8) Toe, (9) Toe-Out on Turns, (10) Tracking, and (11) Tire and Wheel Balance. Each lesson gives objectives, introductory information, and study questions. Illustrations are photographs and line drawings. This material was designed for a one semester course in grades 10-12. (EM)

VT 003 120

Auto Service Specialist, A Study Guide and Progression Record for Auto Service Students in a High School Cooperative Training Program. (File, no. 1489).

Spicer, F. H.

Alabama Univ., University. Dept. of Trade and Ind. Educ.

May67

DOCUMENT NOT AVAILABLE FROM EDRS 89p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *AUTOMOBILE MECHANICS (OCCUPATION), *MOTOR VEHICLES, GRADE 11, GRADE 12, STUDENT RECORDS, *COOPERATIVE EDUCATION,

Job sheets in this guide direct individual study in a cooperative education program for auto mechanics. The study guide was developed by trade and industrial coordinators, subject matter specialists, and teacher educators and has been used in high school programs for many years. Each of the 72 job sheets contains the job title, related study references, and essay-type questions. A trade analysis and program record form provides for recording progress in job experiences and related study. The major areas are -- (1) Engine, (2) Cooling System, (3) Transmission, (4) Brakes, (5) Fuel and Ignition Systems, (6) Accessories, (7) Front End and Tires, (8) Crankcase and Exhaust System and Ventilation System, and (9) Electrical System. For use by students in grades 10, 11, and 12 in area vocational or comprehensive high schools, this material requires 1 hour per day for 2 years. Reference books are listed in the bibliography. This document is available for $1.50 from Trade and Industrial Education, Box 2847, University, Alabama 35486. An answer book (VT 003 121) is available for $1.00 from the same source. (HC)

VT 000 250

Supervised Study Guide, Automobile Mechanics.

Streater, Bill
Texas Univ., Austin. Dept. of Industrial Education
Texas Education Agency, Austin. Industrial Educ. Div.
Pub Date - Dec65
DOCUMENT NOT AVAILABLE FROM EDRS 124p.
*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *AUTO MECHANICS (OCCUPATION), *MOTOR VEHICLES, GRADE 11, GRADE 12, STUDENT RECORDS, INDIVIDUAL INSTRUCTION, *COOPERATIVE EDUCATION,

This study guide is for individual student use in cooperative training for juniors and seniors in automobile mechanics programs in area vocational or technical high schools. It was developed by an instructional materials specialist and an advisory committee at the state level. The content objective is to develop related technical knowledge necessary for an entry level automobile mechanic. The units are -- (1) Fundamentals of the Automobile, (2) General Safety and Precautions, (3) Automobile Engines, (4) Cooling System, (5) Lubrication System, (6) Fuel System, (7) Ignition, (8) Clutches, (9) Transmissions, (10) Rear Axles and Differentials, (11) Suspension and Steering, (12) Brakes, (13) Electrical System, and (14) Air Conditioning. The assignment sheets within each unit give the aim, introductory information, references, and questions. The material is to be used by individual students under teacher supervision for 2 years or 360 directed study hours. The teacher should have normal education for high school coordinators. Students should be employed in cooperative programs. Supplementary materials include a progress record for recording completed job experiences and related study topics and a bibliography of State adopted textbooks. An answer book (VT 000 251) is available for the study guide. This document is available with "Unit Tests for Supervised Study Guide in Automobile Mechanics" (VT 000 252) for $5.00 from the Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (HC)

VT 002 761
Auto Mechanics, Part I, Workbook.

Menconi, Joseph, W. * O'Connell, John A.
California State Dept of Ed, Sacramento. Bur of Ind Ed
Pub Date - 66
MF AVAILABLE IN VT-ERIC SET 117p.
*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *APPRENTICESHIPS, *AUTO MECHANICS (OCCUPATION), *MOTOR VEHICLES, AUTO MECHANICS,

The technical information in this study guide was planned under the direction of the State Educational Advisory Committee for the Automotive Trades and written by two auto mechanics instructors for use as related classroom instruction in the auto mechanics apprentice training program. The units are (1) The Apprentice and His Trade, (2) Mathematics for Auto Mechanics, (3) Tools of the Trade, (4) Petroleum -- General Lubrication, (5) Frames, Springs, and Suspension Systems, (6) Tires, Wheels, and Steering Systems, and (7) Brakes. The units are divided into topic assignments. Each topic has an assignment from reference books, an introduction, a section of related information, and a list of checkup questions for student self-evaluation. In addition, topics in The Apprentice and His Trade include group discussion questions, and topics in Mathematics for Auto Mechanics include problem solving work assignments. The study of this 144-hour course by indentured apprentices on a group or individual basis is to be directed by a qualified journeyman of the trade. Line-drawing and photographic illustrations are included in certain topics. A list of required and recommended instructional materials contains books, bulletins, and films. Testbooks and final examinations are available to the instructor. Auto Mechanics, Part 4 (VT 002 990) is also available. This document is available for $2.00 from Bureau of Industrial Education, California State Department of Education, 721 Capital Mall, Sacramento, California 95814. (HC)

VT 001 628
Auto Mechanics Group Instruction, A Course of Study Designed for Students Preparing for or Presently Employed in Auto Mechanics.

Karnes, James B.
Missouri Univ., Columbia. Dept of Industrial Education
Missouri State Dept. of Education, Jefferson City
Pub Date - Oct66
MF AVAILABLE IN VT-ERIC SET 75p.
*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *AUTO MECHANICS (OCCUPATION), HIGH SCHOOLS, JOB ANALYSIS, GROUP INSTRUCTION, *COOPERATIVE EDUCATION, *MOTOR VEHICLES,

Students may use this guide in studying technical and related information in high, post-high, or area vocational school auto mechanics programs. It was developed at the state level by a committee and research assistants and has been field tested. The 23 assignment sheets contain introductory statements, assignments, references, and discussion questions. The questions guide the student to the important aspects of the reading assignments and form a basis or guide for classroom discussions. Representative assignment sheet titles are (1) Basic Components of the Automobile, (2) Automobile Engine Components, (3) Engine Service, (4) Clutches and Clutch Service, and (5) Air Conditioning. An information sheet is included on job management. The material is to be used on a group or class basis in conjunction with experience in actual repair situations of an automobile or component parts under teacher supervision for 1 year or 180 days. Teachers should be vocationally competent, and students should be in grade 11 or 12 and have proper prerequisites. Supplementary materials include a list of references and a trade analysis. A second study guide (VT 002 080) has been developed for individual study. It is based on the same references and has the same assignments with objective-type questions which may be used for test purposes with this study guide. An answer key (VT 002 081) which locates the question reference sources is available for both study guides. This document is available for $1.50 from Industrial Education, 103 Industrial Education Building, University of Missouri, Columbia, Missouri 65201. (HC)

VT 002 080
Auto Mechanics Individual Study, A Course of Study Designed for Cooperative Part-Time Students Employed in Auto Mechanics Occupations.

Karnes, James B.
Missouri Univ., Columbia. Dept. of Industrial Education
Missouri State Dep of Educ, Jefferson City. Ind Educ Sect
Pub Date - Jul66
MF AVAILABLE IN VT-ERIC SET 126p.
*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *AUTO MECHANICS (OCCUPATION), *MOTOR VEHICLES, HIGH SCHOOLS, JOB ANALYSIS, *COOPERATIVE EDUCATION, INDIVIDUAL INSTRUCTION,

This study guide is for individual student use in related instruction in high school cooperative education programs in auto mechanics. It was developed by a committee of teacher coordinators and teacher educators through an analysis of the trade and has been field tested and periodically revised. The 23 assignment sheets are designed to facilitate individual instruction and contain introductory paragraphs to develop interest, explanations of the importance of the assignments, references, learning activities, and objective-type study questions. Representative assignment sheet titles are (1) Basic Components of the Automobile, (2) Automobile Engine Components, (3) Engine Service, (4) Clutches and Clutch Service, and (5) Automotive Air Conditioning. An information sheet is included on job management. The material is to be used by individual students under teacher supervision for 1 year of 180 days. The teacher should be a qualified coordinator or competent trade teacher. The students should be grade 11 or grade 12 students who are enrolled in a cooperative education program and employed in a phase of auto mechanics. Supplementary materials include a list of references, an analysis of the auto mechanics trade, and progress records for use

by student, instructor, and employer. A second study guide (VT 001 628) has been developed for group study. Answers to study questions are available in VT 002 081. This document is available for $1.50 from Industrial Education, 103 Industrial Education Building, University of Missouri, Columbia, Missouri 65201. (HC)

AUTOMOBILE UPHOLSTERY

VT 000 220

Supervised Study Guide in Auto Upholstery and Trim.

West, Ernest F.

Texas Univ., Austin. Dept. of Industrial Education

Texas Educ. Agency, Austin. Industrial Educ. Division

Sep65

DOCUMENT NOT AVAILABLE FROM EDRS 140p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *AUTOMOBILE UPHOLSTERS, *MOTOR VEHICLES, GRADE 11, GRADE 12, *COOPERATIVE EDUCATION, INDIVIDUAL INSTRUCTION,

The related instruction materials in this study guide were developed for use by grade 11 and grade 12 students in 2-year cooperative training programs in area vocational or technical high schools. It was organized by a trade instructor in a special workshop under the direction of a training specialist and a reviewing committee. Some of the units are -- (1) Sewing Machine and Other Tools and Equipment, (2) Upholstery Materials, (3) Headlining, (4) Door Panels, (5) Rear Quarter Panels, (6) Seat Covers, (7) Re-Upholstery, (8) Pattern Cutting, (9) Convertible Tops, and (10) Boat Cushions and Outdoor Furniture. Assignment sheets present the lesson subject, aim, introductory information, references, and questions. Information sheets contain materials which are not available or not suitably presented in the reference books. Study is to be supervised by a related subjects teacher or teacher-coordinator. A progress record is provided for use by teacher and student in checking progress of planned work experiences and related technical study. The bibliography contains required and supplementary reference books. The study guide and unit tests (VT 000 222) are available for $4.00 per set from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. An answer book, (VT 000 221), for written assignments and unit tests are available, $1.90 each. (HC)

VT 000 265

Automotive Air Conditioning, A Supervised Study Guide of Related Information for the Automotive Air Conditioning Serviceman.

Seymour, A.T.
Texas Univ., Austin. Dept. of Industrial Education
Texas Education Agency, Austin. Industrial Educ. Div.
Pub Date - Mar66
DOCUMENT NOT AVAILABLE FROM EDRS 110p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *AUTO MECHANICS (OCCUPATION), *AIR CONDITIONING, *MOTOR VEHICLES, ADULT VOCATIONAL EDUCATION,

This study guide is for student use in adult extension courses in automotive air conditioning. It was developed by an instructor of adult extension courses to provide a course concerned with correction procedures and service problems. Contents include (1) Glossary of Terms, (2) Information Sheets, and (3) Assignment Sheets. Major units are (1) Heat and Mass, (2) Heat Measurement, (3) Temperature Control with Pressure, (4) Refrigeration Principles Not New, (5) Problems in Temperature Control, (6) Basic Refrigeration Circuit, (7) The Receiver Dehydrator and Expansion Valve, (8) The Thermostat and Magnetic Clutch, (9) By-Pass Systems, and (10) Suction Throttling Regulators. Assignment sheets give subject, aim, introductory information, references, and questions. The teacher should be a craftsman in this area. Students should be employed mechanics, apprentices, or vocational students. A minimum of 40 laboratory hours is required. The document is illustrated with line drawings. A companion document, "Automotive Air Conditioning Service Procedure Manual" (VT 000 266), is also available for $3.95. This document is available for $3.00 from The Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (EM)

VT 000 266
Automotive Air Conditioning Service Procedure Manual.

Seymour, A.T.
Texas Univ, Austin. Dept. of Industrial Education
Texas Education Agency, Austin. Industrial Educ. Div.
Pub Date - Jan66
DOCUMENT NOT AVAILABLE FROM EDRS 137p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *AUTO MECHANICS (OCCUPATION), *AIR CONDITIONING, ADULT VOCATIONAL EDUCATION, *MOTOR VEHICLES,

This manual is for student use in learning repair procedures for automotive air conditioners. It was developed by an adult extension instructor. The contents lead the student through the diagnosis of common malfunctions, tests, and service operations. Major units are (1) Introduction, which includes how the system works, tools, and testing, (2) Diagnosing the System, (3) Testing the System, and (4) Preparing the System for Service. These units include 34 line drawings. This material requires a minimum of 21 hours in an introductory laboratory-type class and constant use as a shop reference. The teacher should be a craftsman in this field. Students should be mechanics, apprentices, or vocational students. A Trouble Check Guide in chart form covers trouble, cause, indications, and remedy. A companion document, "Automotive Air Conditioning, A Supervised Study Guide of Related Information for Automotive Air Conditioning Servicemen" (VT 000 265) is available for $3.00. This document is available for $3.95 (quantity price available). These documents are available from the Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (EM)

AUTOMOTIVE MACHINISTS

VT 003 194
Supervised Study Guide for Automotive Machinist.

Enderby, David R.
Texas Univ., Austin. Dept. of Industrial Education
Texas Education Agency, Austin. Industrial Education Div.
Pub Date - Dec66
DOCUMENT NOT AVAILABLE FROM EDRS 197p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *AUTOMOTIVE MACHINISTS, POST SECONDARY EDUCATION, GRADE 11, GRADE 12, STUDENT RECORDS, *COOPERATIVE EDUCATION, INDIVIDUAL INSTRUCTION,

Information and assignment sheets are used in this guide to direct individual student study in cooperative education programs in automotive machine shop work. The guide was developed by a coordinator under the direction of a training specialist and a reviewing committee. Some of the 20 unit titles are -- (1) Milling Machine, (2) Lathe, (3) Resurfacing Heads and Blocks, (4) Cylinder Boring, and (5) Crankshaft and Camshaft Repair. Assignment sheets within each unit give the lesson subject, aim, introductory information, references, and study questions. Information sheets are used for material which is not available or which is not suitably presented in the references. Study of this material by area vocational school, technical high school, or technical institute students is to be supervised by a related subjects teacher or teacher-coordinator. A form is provided for checking student progress through a series of planned work experiences and related technical study over a 2-year period. Required and supplementary references are listed in the bibliography. Unit tests (VT 003 195) are available. An answer book (VT 003 196) contains answers to the study guide questions and the unit tests. Copies of the study guide and unit tests are available for $7.70 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (HC)

AUTO PARTS MEN

VT 000 216

Auto Parts Counterman.
Texas Univ., Austin. Instructional Materials Laboratory

Jun65

DOCUMENT NOT AVAILABLE FROM EDRS 5 parts
*SECONDARY EDUCATION, *DISTRIBUTIVE EDUCATION, *AUTOMOTIVE PARTS MEN, *STUDY GUIDES, REFERENCE BOOKS, ANSWER KEYS, MOTOR VEHICLES, OCCUPATIONAL INFORMATION, WHOLESALING, TEXTBOOKS,
This kit, consisting of reference materials, an assignment book, and an answer book, is designed for preparing distributive education students for positions as auto parts countermen in the automotive service industry. The assignment manual contains 36 assignments ranging from How the Auto Parts Industry Began to Delivery Duties. Each lesson contains a reading assignment in one of the accompanying reference booklets, questions, and projects. There are three reference booklets -- Automotive Wholesaler, Counterman's Handbook, published by the Automotive Service Industry

Association, A Worker's Introduction to Wholesaling in the Automotive Industry, by William J. Micheels, and Building an Organization, by William J. Micheels. This kit is available for $12.50 from Instructional Materials Laboratory, Distributive Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (SL)

VT 000 232

Supervised Study Guide. Auto Partsman.
Texas Univ., Austin. Dept. of Industrial Education

Texas Education Agency, Austin. Industrial Educ. Div.

Apr64

DOCUMENT NOT AVAILABLE FROM EDRS 130p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *AUTOMOTIVE PARTS MEN, MOTOR VEHICLES, *COOPERATIVE EDUCATION, HIGH SCHOOLS,
The related technical information in this study guide is for use by students in cooperative training programs in area vocational or technical high schools. It was written by a training specialist and reviewed by a committee of teachers. Assignment sheets cover -- (1) Stockroom Organization, (2) Receiving, (3) Shipping, (4) Discounts, (5) Inventory Control, (6) Shipping Regulations, (7) Routine Counter Service, (8) Catalogs and Pricing, (9) Salesmanship, and (10) Effective Display. Each sheet presents subject, aim, introductory information, reference, and questions. Information sheets cover topics not given in references. A progress record form coordinates job and class experiences. The guide is intended to cover 360 directed-study hours or two years for a part-time secondary or adult student. A bibliography of texts and other references is included. Unit tests are available in VT 000 234 and text and assignment answers in VT 000 233. Both, with the guide, are available for $3.75 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (EM)

BARBERS

VT 003 114 ED 013 948

Barbering, A Study Guide and Progression Record for Barbering Students in a Cooperative Training Program. (File, no. 1338).
Alabama Univ., University. Dept. of Trade and Ind. Educ.

Nov63

EDRS PRICE MF-$0.18 HC-NOT AVAILABLE FROM EDRS 76p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *BARBERS, GRADE 11, GRADE 12, STUDENT RECORDS, *COOPERATIVE EDUCATION,
Question-type job or assignment sheets in this guide direct the student's related study in cooperative training programs. The material was developed by trade and industrial coordinators, subject matter specialists, and teacher educators. It was tested by use in high school programs. The 61 job sheets are keyed to

three related reference books, but coordinator may supplement the student's study with additional material. Completed job experiences and related readings are to be recorded on the job sheets which cover the history of barbering, ladies' haircuts, the voluntary muscles of the head, acne facials, etc. A trade analysis progress form for teacher and student use is provided for recording composite job performance and reference readings during the 2-year program. The material was developed for grade 11 and grade 12 students in area vocational or comprehensive high schools. This mimeographed document includes a bibliography of related references and supplementary materials. This document is available for $1.50 from Trade and Industrial Education, Box 2847, University, Alabama, 35486. An answer book (VT 003 115) is also available, $1.00 each. (HC)

BLUEPRINTING

VT 003 193
Blueprint Reading and Sketching.

Louisiana Vocat. Curriculum Develop. and Res. Center
Pub Date - 67
MF AVAILABLE IN VT-ERIC SET 121p.
*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *PIPE FITTERS, *BLUEPRINTS, ADULT VOCATIONAL EDUCATION,

This study guide presents (1) textual information on sketching and drafting, (2) exercises consisting of questions about included drawings, (3) information and job sheets for 12 pipe layout assignments, (4) a glossary of terms and symbols, and (5) textual information on values, flanges, and gaskets. Portions have been reprinted from an earlier edition originating in Oklahoma. The guide was designed for use with courses for adult welder or petroleum industry workers. Time allotment is 100 hours. Line drawings are used to illustrate the assignments. This document is available in single copy only for $2.00 from Vocational Curriculum Development and Research Center, P.O. Box 657, Natchitoches, Louisiana 71457. (EM)

BRICKLAYERS

VT 002 819

Brickmasonry. (File, no. 590).
Caldwell, L. C.
Alabama Univ., University. Dept. of Trade and Ind. Educ.

Jun63

DOCUMENT NOT AVAILABLE FROM EDRS 95p.
The purposes of this guide are to direct the study and record the progress of students in cooperative high school classes. It was developed by a committee of Trade and Industrial Coordinators. The content includes -- (1) an 80-item brickmason trade analysis, (2) study questions and problems for each of the items, (3) reading assignments for seven references, and (4) forms for recording student progress. Most of the questions require essay answers. Suggested time allotment is one hour per day for two years. This document is available for $1.25 from Trade and Industrial Education, Box 2847, University, Alabama 35486. An answer key (VT 001 401) is also available for $1.25 (EM)

VT 000 732
Bricklaying II, Learner's Manual.

Ohio State Dept. of Education, Columbus. Trade and Industrial Education Service
MF AVAILABLE IN VT-ERIC SET.
BRLM-2
Ohio Trade and Industrial Education Service, Instructional Materials Laboratory, The Ohio State University, 1885 Neil Avenue, Columbus, Ohio 43210 ($2.00).
Pub Date - 65 149p.

*STUDY GUIDES; *TRADE AND INDUSTRIAL EDUCATION; *BRICKLAYERS; ADULT VOCATIONAL EDUCATION; *APPPENTICESHIPS

This study guide was developed by a committee of curriculum specialists to assist the apprentice in the mastery of the related technical knowledge for the bricklaying trade. The material is especially constructed for the first 2 years of apprenticeship training and has been tested and revised. Assignment objectives, reading references, background information, and questions are given in 21 topic areas to direct the apprentice to the important and essential information. Some of the topics are (1) Fireplace, (2) Chimneys, (3) Glass Blocks, (4) Arches, (5) Moisture Proof Walls, (6) Brick Veneer, and (7) Blueprint Reading. The assignment sheets are supplemented with line drawings and photographs, and comprehensive reviews are spaced throughout the assignments to provide a check on individual progress and ability. The material may be used by students who are employed in or planning to enter the bricklaying trade, on an individual or group basis under the direction of a journeyman bricklayer. An answer book "Bricklaying II, Answers" may be obtained from the source of availability indicated for the document. (HC)

BUILDING MAINTENANCE

VT 005 259
Supervised Study Guide for Building Maintenance Man.

Enderby, David R.
Texas Univ., Austin. Dept. of Industrial Education.
Texas Education Agency, Austin. Industrial Education Div.
Pub Date - Aug67
DOCUMENT NOT AVAILABLE FROM EDRS. 168p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *BUILDING MAINTENANCE MEN, GRADE 11, GRADE 12, *COOPERATIVE EDUCATION,
This study guide was developed by an instructional materials specialist and an advisory committee for use by students in cooperative education programs for building maintenance men. Major units are (1) Safety, (2) Mathematics, (3) Construction Details, (4) Layout, (5) Hand Tools, (6) Power Tools, (7) Abrasives, (8) Fasteners, (9) Materials and Materials Handling, (10) Interior Maintenance, (11) Exterior Maintenance, (12) Paints and Finishes, (13) Electrical Maintenance, and (14) Mechanical Maintenance. Assignment sheets for each of the 75 lessons provide an objective, introductory information, references, and study questions. The material was planned for 360 hours of directed study for part-time secondary or post-secondary students. The teacher should be a qualified teacher-coordinator. A job and class progress record and information sheets are included. VT 005 257 contains unit tests and VT 005 258 contains answers to assignments in this guide and to the unit tests. This document is available with the Unit Tests for $5.35 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (EM)

BUILDING MATERIALS

VT 000 213
Lumber and Building Materials. Part Two.

Bronstad, Homer
Texas Univ., Austin. Industrial and Business Training
Texas Education Agency, Austin. Distr. Educ. Service
Pub Date - Apr65
DOCUMENT NOT AVAILABLE FROM EDRS 138p.

*TEXTBOOKS, REFERENCE MATERIALS, *DISTRIBUTIVE EDUCATION, HIGH SCHOOLS, POST SECONDARY EDUCATION, *BUILDING MATERIALS, *MERCHANDISING, *INDIVIDUAL INSTRUCTION,

This manual contains information to be used in directed individual instruction by high school, junior college, or area vocational school distributive education (DE) students with career objectives in the area of lumber and building materials merchandising. It was developed by a DE coordinator with experience in this area of merchandising. Section titles are (1) Metal Building Materials, (2) Windows, Doors, and Millwork, (3) Hardware and Related Items, (4) Glass, Plastic Glazing and Caulking, (5) Board Products and Wall Tile, (6) Flooring and Floor Coverings, (7) Roofing, Shingles, and Siding, (8) Insulation, (9) Plaster and Plastering Products, (10) Cement and Masonry Products, (11) Clay and Tile Products, (12) Selling Building Materials, and (13) Merchandising. The information is for use with assignments in "Lumber and Building," Assignments (VT 000 214). "Lumber and Building" Part One (VT 000 212) is a related document. The three manuals are available for $8.75 from Instructional Materials Laboratory, Distributive Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (MM)

VT 000 212
Lumber and Building Materials. Part One.

Bronstad, Homer
Texas Univ., Austin. Industrial and Business Training
Texas Education Agency, Austin. Distr. Educ. Service
Pub Date - Apr65
DOCUMENT NOT AVAILABLE FROM EDRS 127p.

*TEXTBOOKS, REFERENCE MATERIALS, *DISTRIBUTIVE EDUCATION, *BUILDING MATERIALS, *MERCHANDISING, HIGH SCHOOLS, POST SECONDARY EDUCATION, INDIVIDUAL INSTRUCTION,

This manual contains information to be used in directed individual instruction by high school, junior college, and area vocational school distributive education (DE) students with career objectives in the area of lumber and building materials merchandising. It was developed by a DE coordinator with experience in this area of merchandising. Section titles are (1) The Lumber and Building Industry, (2) Lumber, (3) Plywood, (4) Blueprints, (5) Dictionary of Terms, and (6) Lumber Abbreviations. The information is for use with assignments in "Lumber and Building" Assignments (VT 000 214). "Lumber and Building" Part Two (VT 000 213) is a related document. The three manuals are available for $8.75 from Instructional Materials Laboratory, Distributive Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (MM)

VT 000 214
Lumber and Building Materials. Assignments.

Texas Univ., Austin. Industrial and Business Training
Texas Education Agency, Austin. Distr. Educ. Service
Pub Date - Apr65
DOCUMENT NOT AVAILABLE FROM EDRS 77p.

*STUDY GUIDES, *DISTRIBUTIVE EDUCATION, *BUILDING MATERIALS, *MERCHANDISING, HIGH SCHOOLS, POST SECONDARY EDUCATION, *INDIVIDUAL INSTRUCTION, This manual was designed for directed individual instruction by high school, junior college, or area vocational school distributive education students with career objectives in the area of lumber and building materials merchandising. It was developed by a distributive education coordinator with experience in this area of merchandising. It consists of 71 assignments for use with two information manuals (VT 000 212 - VT 000 213). Each assignment contains subject title, reference to specific pages in the information manuals, questions, and projects. Subject matter areas include (1) properties of woods, (2) classification of lumber, (3) lumber measurement, (4) lumber arithmetic, (5) estimating lumber requirements, (6) plywood, (7) blueprint reading, (8) sheet metal, (9) hardware, (10) flooring, (11) insulation, (12) selling techniques, and (13) merchandising. This and the two information manuals are available for $8.75 from Instructional Materials Laboratory, Distributive Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (MM)

CABINETMAKERS

VT 000 440
Supervised Study Guide in Cabinetmaking.

Texas Univ., Austin. Industrial Education Dept.
Texas Education Agency, Austin. Industrial Educ Div.
Pub Date - Jul66
DOCUMENT NOT AVAILABLE FROM EDRS 148p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *CABINETMAKERS, GRADE 11, GRADE 12, STUDENT RECORDS, INDIVIDUAL INSTRUCTION, *COOPERATIVE EDUCATION, *CABINETMAKING,

This study guide is for individual student use in cooperative training for juniors and seniors in cabinetmaking programs in area vocational or technical high schools. This second edition was developed by an instructional materials specialist and an advisory committee at the state level. The content objective is to develop the related technical knowledge necessary for an entry-level cabinetmaker. The units are (1) General Shopwork, (2) Cutting Stock with Hand Tools, (3) Assembly Work, (4) Sharpening Hand Tools, (5) Finish Work, (6) Blueprint Reading, (7) Layout, and (8) Power Tools. The assignment sheets within each unit give the aim, introductory information, references, and questions. The material is to be used by individual students under teacher supervision for 2 years or 360 directed study hours. The teacher should have normal education for high school coordinators. Students should be employed in cooperative programs. Supplementary materials include a progress record for recording completed job experiences and related study topics and a bibliography of required references. An answer book (VT 000 439) is available for the study guide. This document is available with "Unit Tests for Supervised Study Guide in Cabinetmaking" (VT 000 438) for $4.70 from the Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (HC)

VT 002 072
Cabinetmaking, A Course of Study Designed for Cooperative Part-Time Students Employed in Cabinetmaking Trades.

Kirby, Jack * Robinson, Orin
Missouri Univ., Columbia. Dept. of Industrial Education
Missouri State Dept. of Education, Jefferson City

Pub Date - Jan65
MF AVAILABLE IN VT-ERIC SET 166p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *CABINETMAKERS, *CABINETMAKING, GRADE 11, GRADE 12, *COOPERATIVE EDUCATION,

This study guide is for use by preparatory or cooperative students at the secondary or post-secondary level. It was developed by teacher educators and research assistants with help from a consultant committee. Unit titles are (1) The Cabinetmaker and His Work, (2) Selection, Use, and Care of Hand Tools, (3) Selection, Use, and Care of Basic Power Equipment, (4) Specialized Cabinetmaking Equipment, (5) Safety for the Cabinetmaker, (6) Tool Sharpening, (7) Reading Drawings and Planning the Work, (8) Estimating Material and Calculating Costs, (9) Lumber and Lumber Processing, (10) Plywood, Veneers, and Special Materials, (11) Framing Square and Geometric Layout, (12) Wood Joinery, (13) Construction of Cabinets and Built-Ins, (14) Construction of Cabinet Parts and Special Features, (15) Furniture Manufacturing, (16) Finishing Procedures, (17) Doors, Windows, and Sash Construction, (18) Sash, Trim, and Frames, (19) Fasteners and Hardware, (20) Adhesives, (21) Furniture Restoration and Refinishing, and (22) The Small Woodworking Enterprise. Assignment sheets for each unit include the assignment, references, and objective-type questions. Supplementary materials include a job analysis and a progress record. Students should be at least high school juniors, and the teacher should be a qualified coordinator or trade teacher in this 180-day course. An answer key (VT 002 073) is available for 50 cents. This document is available for $1.50 from Industrial Education, 103 Industrial Education Building, University of Missouri, Columbia, Missouri 65201. (EM)

VT 002 785
Cabinetmaking and Millwork, Part 3, Workbook.

Gauthier, Al * and others
California State Dept of Ed, Sacramento. Bur of Ind Ed
Pub Date - 66
MF AVAILABLE IN VT-ERIC SET. 122p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *APPRENTICESHIPS, *CABINETMAKERS, *CABINETMAKING,

The information in this study guide was developed for use in related technical instruction in the cabinetmakers apprentice training program. The material was written by two cabinetmaking and millwork instructors and an apprentice training specialist under direction and assistance of the Carpenters State Educational Advisory Committee and an educational subcommittee. The units are (1) Lumber and Veneers, (2) Adhesives, (3) Plastic Laminates, (4) Power Machines, (5) Cabinets and Fixtures, (6) Millwork, and (7) Blueprint Reading and Layout. Each unit is divided into topics which contain an introduction, a section of related information, an assignment from supplementary books, and a set of check-up questions for student self-evaluation. A record of student progress may be kept in the study guide index. The study of this 144-hour course by indentured apprentices on a group or individual basis is to be directed by a qualified journeyman of the trade. Line-drawing illustrations are included. A list of supplementary instructional materials includes six required books and two classroom library books. Testbooks and final examinations are available to the instructor. Cabinetmaking and Millwork, Part 2, (VT 002 991) is also available. This document is available for $2.00 from Bureau of Industrial Education, California State Department of Education, 721 Capitol Mall, Sacramento, California 95814. (HC)

VT 002 991
Cabinetmaking and Millwork, Part 2, Workbook.

California State Dept of Ed, Sacramento. Bur of Ind Ed
Pub Date - 64
MF AVAILABLE IN VT-ERIC SET. 108p.
*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *CABINETMAKERS, *APPRENTICESHIPS, *CABINETMAKING,

The information in this study guide was developed for use in related technical classroom instruction in the cabinetmaker apprentice training program. The material was planned and developed in cooperation with trade journeymen and the Carpenters State Educational Advisory Committee. The units are (1) Mathematics, (2) Blueprint Reading and Stock Billing, (3) Power Machines, (4) Machine Operations, (5) Layout, (6) Millwork, (7) Benchwork, and (8) Laminated Plastics. Each unit is divided into study topics which contain an assignment from reference material, an introduction of background material, a section of related information, and a set of check-up questions for student self-evaluation. Photographic and line-drawing illustrations are included. A record of topics completed may be kept in the study guide index. The study of this 144-hour course by indentured apprentices on a group or individual basis is to be directed by a qualified journeyman of the trade. Recommended supplementary instructional materials for the apprentice and the classroom library are listed. Testbooks and final examinations are available to the instructor. Cabinetmaking and Millwork, Part 3 (VT 002 785) is also available. This document is available for $2.00 from Bureau of Industrial Education, California State Department of Education, 721 Capitol Mall, Sacramento, California 95814. (HC)

VT 005 180
Course in Cabinetmaking and Millwork, A Workbook for Apprentices. Part I.

Bryson, Robert * and others
California State Dep of Educ, Sacramento. Bur of Ind Educ
Pub Date - 62
MF AVAILABLE IN VT-ERIC SET. 123p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *CABINETMAKERS, CABINETMAKING, *APPRENTICESHIPS,

This guide is for student use in studying related technical information in the first year of the cabinetmaker apprentice training program. The material was planned, developed, and revised in cooperation with the State Educational Advisory Committee for the Cabinetmaking and Millwork Trade. Units of instruction are (1)The Apprentice Cabinetmaker and His Trade, (2) Mathematics--Arithmetic, (3) Materials, (4) Hand Tools, (5) Power Tools, (6) Joints, and (7) Elementary Blueprint Reading. Each unit is divided into study topics which contain an introduction, related information, an assignment from reference materials, and a set of checkup questions for student self-evaluation. A record of student progress may be kept in the study guide index. Photographic and line-drawing illustrations are included. The study of this 144-hour course by indentured apprentices on a group or individual basis is to be directed by a qualified journeyman of the trade. A list of supplementary instructional materials includes eight books and booklets recommended for each apprentice and 12 books and leaflets recommended for the classroom library. Testbooks and final examinations for the course are available to the instructor. "Cabinetmaking and Millwork," Part 2 (VT 002 991) and Part 3 (VT 002 785) are also available. This document is available for $2.00 from Bureau of Industrial Education, California State Department of Education, 721 Capitol Mall, Sacramento, California 95814. (HC)

CARPENTERS

VT 003 645
Carpentry, A Course of Study, Incorporated in the Course of Study Designed for Cooperative Part-Time Students Employed in Carpentry Occupations.

Karnes, James B.
Missouri Univ., Columbia. Dept. of Industrial Education
Missouri State Dept. of Education, Jefferson City
Pub Date - Sep65
MF AVAILABLE IN VT-ERIC SET 168p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *CARPENTERS, *CARPENTRY, HIGH SCHOOLS, JOB ANALYSIS, COOPERATIVE EDUCATION, *INDIVIDUAL INSTRUCTION,

This study guide is for individual student use in acquiring related technical information in high school cooperative education programs in carpentry. It was developed by a committee of teacher coordinators and teacher educators through an analysis of the trade and has been field tested and periodically revised. The 33 assignment sheets are designed to facilitate individual instruction and contain introductory paragraphs to develop interest, explanations of the importance of the assignments, references, learning activities, and objective-type questions. Representative assignment sheet titles are Types of Concrete Forms and the Methods Used in Their Construction, The Use of Architectural Conventions in Blueprints, Methods of Wall Framing, and Interior Trim and Its Application. The teacher supervising the 180-hour course should be a qualified coordinator or competent trade teacher, and the students should be in grades 11 or 12, enrolled in cooperative education programs, and employed in the carpentry trade. Supplementary materials include a list of references, an analysis of carpentry, and a progress record. Answers to the questions are available in VT 003 644. This document is available for $1.75 from Industrial Education, 103 Industrial Education Building, University of Missouri, Columbia, Missouri 65201. (HC)

VT 003 391
Supervised Study Guide in Carpentry.

Cockrum, Jim
Texas Univ., Austin. Dept. of Industrial Education
Texas Education Agency, Austin. Industrial Educ Div.
Pub Date - Jul67
DOCUMENT NOT AVAILABLE FROM EDRS 154p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *CARPENTERS, POST SECONDARY EDUCATION, *CARPENTRY, GRADE 11, GRADE 12, *INDIVIDUAL INSTRUCTION, STUDENT RECORDS,

This supervised study guide is for student use at the junior, senior, or post-secondary level in entry carpentry courses. It was developed by an instructional materials specialist and interested coordinators in a summer school class. An introduction to the vocation of carpentry precedes the assignment sheets which cover (1) Carpentry Tools, (2) Wood, (3) Insulation, (4) Fasteners and Other Hardware, (5) Blueprints and Specifications, (6) Foundations, (7) Wall and Floor Framing, (8) Roof Framing, (9) Exterior Covering and Trim, and (10) Interior Finishing. Each sheet contains subject, aim, introductory information, references, and questions. The material is to be used in a 2-year part time program or for 360 hours of directed study. The teacher should be a qualified coordinator or craft instructor. Supplementary materials include job and class progress records and a short selected bibliography of necessary references and materials. "Unit Tests for Supervised Study Guide in Carpentry" (VT 003 390) and this guide are available for $5.35. An "Answer Book for Supervised Study Guide in Carpentry" (VT 003 389) is available for $3.15. All are available from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (EM)

VT 002 940
Carpentry, Cabinet and Millwork. D.O. Series Progression Chart, no. 76.

Stone, P. O. * and others
Alabama Univ., University. Dept. of Trade and Ind. Educ.
File-540.
Pub Date - Jun63
MF AVAILABLE IN VT-ERIC SET 163p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *CARPENTERS, *CABINETMAKING, GRADE 11, GRADE 12, *COOPERATIVE EDUCATION,

This study guide is to direct the individual study of high school juniors and seniors in cooperative education programs in carpentry and cabinet and mill work. It was developed by a statewide committee of trade and industrial education coordinators and designed by subject matter specialists and teacher educators. The 123 job sheets are grouped into units titled (1) Maintain Hand Tools and Equipment, (2) Maintain Machine Tools and Equipment, (3) Size and Square to Dimensions, (4) Make Joints with Hand and Machine Tools, (5) Miscellaneous Construction, (6) Gluing and Clamping, (7) Metal Fastenings, (8) Wood Turning, (9) Surface Decoration, (10) Upholstery, (11) Wood Finishing, and (12) Millwork Projects. Each job sheet is indexed to an occupational analysis and progression record and provides the job title, related study references, and study questions designed to give the student definite direction in his reference reading. Eleven drawing problems are included. The material is to be used by individual students under teacher supervision for 2 years or 360 hours. This mimeographed document is available for $2.00 from Trade and Industrial Education, State Department of Education, P.O. Box 2847, University, Alabama 35486. (HC)

VT 005 509
Course In Carpentry. Volume I.

California State Dept. of Education, Sacramento. Bureau of Industrial Education
MF AVAILABLE IN VT-ERIC SET.
Bureau of Industrial Education, California State Department of Education, 721 Capitol Mall, Sacramento, California 95814 ($3.00)
Pub Date - 68 299p.

*STUDY GUIDES; *TRADE AND INDUSTRIAL EDUCATION; *CARPENTERS; ADULT VOCATIONAL EDUCATION; *APPRENTICESHIPS

This study guide was developed for use by classes or individual carpentry apprentices. It contains 47 lessons under these topics: (1) The Apprentice Carpenter and His Trade, (2) Carpentry Mathematics, (3) Pre-Job Planning and Blueprint Reading, (4) The Plot Plan, and (5) Foundations and Floors. Each related instruction lesson provides introductory information, an assignment, and study questions. The assignments are made from 12 texts, 6 of which the individual apprentice should have. The others are necessary classroom references. The guide was designed for 144 hours of instruction conducted by a qualified journeyman. Supplementary materials include 38 architectural schematics or detail drawings, a blueprint reading guide, and a glossary of abbreviations used on architectural drawings. (EM)

VT 000 101
Nittoli, Anthony A.; Poniatowski, Stephen J.
Carpentry I, House Framing.

New Jersey State Dept. of Education, Trenton. Div. of Vocational Education
Rutgers State Univ., New Brunswick, N.J. Vocational-Technical Curriculum Lab.
MF AVAILABLE IN VT-ERIC SET.
Vocational-Technical Curriculum Laboratory, Rutgers University, 10 Seminary Place, New Brunswick, New Jersey 08903 ($1.75).
Pub Date - Aug66 198p.

*STUDY GUIDES; *TRADE AND INDUSTRIAL EDUCATION; INDUSTRIAL ARTS; *CARPENTRY; HOUSING; HIGH SCHOOLS

This study guide is for student use in a carpentry course devoted to house framing. It was developed by a local carpentry instructor to provide information relevant to the construction of a model house by high school students. Fifty-eight lessons are presented under these topics: (1) Sill Construction, (2) Girders and Columns, (3) Headers, Joists, and Bridging, (4) Framing Floor Openings, (5) Sub-Flooring, (6) Exterior Wall Framing, (7) Interior Partitions, (8) Ceiling Joists and Roof Construction, (9) Special Framing Problems, and (10) Safety. Each lesson gives an objective, technical information, illustrations, an assignment, and study questions. The material is to be used by individual students under teacher supervision for 1 year. Students should be male high school students. The document is profusely illustrated with line drawings and photographs, a bibliography, achievement examinations, and nine technical charts. (EM)

CHILD CARE

VT 000 359 ED 013 289

The Care of Infants and Young Children, A Program to Prepare Personnel for Group Care of Young Children.

Milliken, Mary Elizabeth, ed.

North Carolina State Board of Ed, Raleigh. Vocat Tech Div

May67

EDRS Price MF-$0.09 HC-$2.12 53p.

*CURRICULUM GUIDES, *OCCUPATIONAL HOME ECONOMICS, *CHILD CARE WORKERS, *CHILD CARE, HIGH SCHOOLS, ADULT VOCATIONAL EDUCATION, PROGRAM DEVELOPMENT, *COOPERATIVE EDUCATION, Content is outlined for post-secondary, preemployment or upgrading courses to prepare child care workers to work in day care or child development centers, nursery schools, kindergartens, camps, etc. The development group consisted of a committee and subject matter specialists at the state level. Courses are The Nature and Scope of Day Care for Young Children, Health and Safety of Young Children, Creative Activities for Young Children, and Field Experience in Child Care Facilities. Suggested time allotment at the preemployment level is 330 hours. The teacher should be a specialist in child development with a background in home economics psychology, pediatric nursing, or preschool education. The student should possess the basic skills needed to profit from the instruction and have an interest and personal qualities necessary for working with young children. The cooperating employer in the child care centers should be involved in the evaluation of all students. The appendix includes a listing of books, pamphlets, periodicals, and films. (MS)

CLOTHES MERCHANDISING

VT 000 184
Men's Wear for Cooperative Part-Time Distributive Education Students in High Schools and Junior Colleges.

Liston, Lovic
Texas Univ., Austin. Dept. of Distributive Education
Texas Education Agency, Austin. Distr. Education Service
Pub Date - Jul65
DOCUMENT NOT AVAILABLE FROM EDRS 158p.
*TEXTBOOKS, *STUDY GUIDES, *DISTRIBUTIVE EDUCATION, *MERCHANDISING, *CLOTHING, MALES, HIGH SCHOOLS, POST SECONDARY EDUCATION, INDIVIDUAL INSTRUCTION,

The manual provides directed individual instruction for distributive education students with career objectives in merchandising of men's wear. It was developed by a distributive education teacher-coordinator with experience in the area. Included are 56 assignments and an information section covering (1) Stockkeeping, Checking, and Marking Duties, (2) Selling Points for Men's Wear, (3) Fabrics Used in Men's Wear, (4) Construction of Men's Wear, (5) Fashions and Models in Men's Wear, (6) Fitting Men's Wear, and (7) Marking Men's Wear for Alterations. Each assignment contains the subject title, page number of reference information, questions, and projects. This document is available for $3.00 from Instructional Materials Laboratory, Distributive Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. An answer book (VT 000 185) is also available for $2.50 from the same source. (MM)

VT 000 188
Let's Sell Ready to Wear.

Van Liew, Mary
Texas Univ., Austin. Industrial and Business Training
Texas Education Agency, Austin. Distr. Educ. Service
Pub Date - Aug65
DOCUMENT NOT AVAILABLE FROM EDRS 186p.

*TEXTBOOKS, *STUDY GUIDES, *DISTRIBUTIVE EDUCATION, *CLOTHING, FEMALES, *MERCHANDISING, HIGH SCHOOLS, POST SECONDARY EDUCATION, INDIVIDUAL INSTRUCTION, The purpose of this manual is to provide information and directed individual instruction for high school, junior college, and area vocational school distributive education (DE) students who have career objectives in the area of ready-to-wear merchandising. Emphasis has been placed on the departments of sportswear, lower-priced dresses, and other areas which provide much of the training for beginning workers. The materials were developed by a DE teacher-coordinator with experience in the merchandising area. Included is an assignment section of 74 lessons and an information section. Other necessary information is contained in "Fifty-Four Basic Lessons in Fabrics (VT 001 095). Subject matter headings are Stockkeeping, Selling Techniques, Merchandise Information, and Fabrics. Each assignment contains subject title, reference to information sections, questions, and projects. Photographs and line-drawing illustrations are included. The manual for $3.50 and an answer book (VT 000 162) for $2.50 are available from Instructional Materials Laboratory, Distributive Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (MM)

VT 000 174
Men's Furnishings for Cooperative Part-Time Distributive Education Students in High Schools and Junior Colleges.

Click, Carrol
Texas Univ., Austin. Dept. of Distributive Education
Texas Education Agency, Austin. Distr. Educ. Service
Pub Date - Apr65
DOCUMENT NOT AVAILABLE FROM EDRS 154p.
*TEXTBOOKS, *STUDY GUIDES, *DISTRIBUTIVE EDUCATION, *MERCHANDISING, *CLOTHING, MALES, HIGH SCHOOLS, POST SECONDARY EDUCATION, INDIVIDUAL INSTRUCTION,
The student manual consists of an assignment section of 37 lessons and information for each to be used in directed individual instruction of distributive education students with career objectives in the men's wear field. The material was developed by a coordinator of distributive education experienced in the area. Each assignment includes (1) subject, (2) reference assignment, (3) explanation of the lesson, (4) questions, and (5) projects. Some of the subject areas are (1) stockkeeping, (2) dress shirts, (3) men's ties, (4) sport shirts, (5) hats, (6) men's socks, (7) pajamas and robes, (8) underwear, (9) men's jewelry, (10) work clothes, (11) merchandise presentation, (12) customer objections, (13) women's influence, (14) clientele, and (15) the salesman's appearance. This document is available for $5.00 from Instructional Materials Laboratory, Distributive Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. An answer book (VT 000 175) is also available for $2.50 from the same source. (MM)

COMMERCIAL COOKING

VT 001 250

Commercial Cooking, A Study Guide and Progression Record for Commercial Cooking Students in a Cooperative Training Program. (File, no. 1425).

Alabama Univ., University. Dept. of Trade and Ind. Educ.

Jul66

DOCUMENT NOT AVAILABLE FROM EDRS 138p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *COOKS, *FOOD SERVICE, HIGH SCHOOLS, *COOPERATIVE EDUCATION.

Related instructional material and a progress record form are provided for use by students in grades 10, 11, and 12 in a cooperative program in area vocational or comprehensive high schools. The guide was developed at the state level by a committee of Trade and Industrial Education Coordinators who were subject matter specialists and teacher educators. It was tested in high schools for 30 years and is now being used in all states. Assignment sheets, information sheets, and references are coordinated with the 56 jobs which are listed on the progress record and include -- (1) prevention of food-borne diseases, (2) maintenance of physical fitness and cleanliness, (3) use and care of kitchen equipment, (4) meat cookery, (5) pastry cookery, and (6) fruit and vegetable cookery. One period per day for 2 years, or 360 hours, is the required instructional time. This document is available for $2.25 from Trade and Industrial Education, Box 2847, University, Alabama 35486. The answer booklet, VT 000 852, is available for $1.00 from the same source. (MS)

COOKS

VT 002 050

Chef, A Course of Study, Designed for Cooperative Part-Time Students Employed in Food Service Establishments.

Karnes, James B.
Missouri Univ., Columbia. Dept. of Industrial Education
Missouri State Dept. of Education, Jefferson City
Pub Date - Jan64
MF AVAILABLE IN VT-ERIC SET 124p.

CURRICULUM, *FOOD, *COOKS, *STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *COOPERATIVE EDUCATION, GRADE 11, GRADE 12,

This study guide is for use by junior and senior high school students in preparatory programs for the vocation of chef. It was developed by an advisory consultant and research assistants at the local and state levels and has been field tested and revised periodically. Twenty-one assignment sheets, each containing information, assignment, references, and questions, cover 97 units in the subject areas--(1) The Chef, (2) Operation and Care of Equipment and Facilities, (3) Selection and Preparation of Food, and (4) Organization, Planning, and Purchasing. A two-column analysis form correlates what the worker should be able to do and what the worker should know. This material is to be used by individual students under teacher supervision for 180 hours. A bibliography of references and self evaluation forms are included. An answer key (VT 002 051) is available for 50 cents. This document is available for $1.50 from Industrial Education, 103 Industrial Education Building, University of Missouri, Columbia, Missouri 65201. (FP)

DENTAL ASSISTANTS

VT 002 857

Dental Assistant, A Course of Study Designed for Cooperative Part-Time Students Employed as Dental Assistants.

Karnes, James B.

Missouri Univ., Columbia. Dept. of Industrial Education

Apr61

DOCUMENT NOT AVAILABLE FROM EDRS 123p.

*DENTAL ASSISTANTS, *STUDY GUIDES, *COOPERATIVE EDUCATION, *HEALTH OCCUPATIONS EDUCATION, HIGH SCHOOLS, POSTSECONDARY EDUCATION,

This 180-hour study guide, consisting of an analysis of the dental assistant and assignment sheets covering the related occupational information to be taught, was prepared for teaching dental assistants on an individual basis in a cooperative part-time program at the secondary or postsecondary level. It was developed by research assistants and an advisory committee at the state level in consultation with a dentist and dental assistants and revised after several years. Some of the assignment sheets are -- (1) Working with the Public, (2) Maintaining Patient Records, (3) Managing the Office, (4) Anatomy and Technical Terms, (5) Oral Hygiene and Orthodontics, (6) Drugs, Anesthesia, First Aid and Emergency Care, (7) Surgery, (8) Impressions, Models, Dentures, and Casting, and (9) Radiography. Each sheet gives assignments, references, and questions. Reference for the guide is Schwarzrock, L. H. and S. P. Schwarzrock, "Effective Dental Assisting," W. C. Brown Co., Dubuque, Iowa, 1959, $8.00. This document is available for $1.50 from Industrial Education, 103 Industrial Education Building, University of Missouri, Columbia, Missouri 65201. An answer key is available for 50 cents from the same source. (PS)

T 000 241

Supervised Study Guide, Dental Assistant.

Texas Univ., Austin. Dept. of Industrial Education

Jan65

DOCUMENT NOT AVAILABLE FROM EDRS 144p.

*STUDY GUIDES, *HEALTH OCCUPATIONS EDUCATION, *DENTAL ASSISTANTS, HIGH SCHOOLS, *COOPERATIVE EDUCATION,

Related technical instruction for high school students in a cooperative, on-the-job, 2-year educational program for dental assistants is presented. The guide is to be used under the direct supervision of a related subjects teacher. The materials were developed by a coordinator and reviewing committee at the state level. Assignment sheets are -- (1) Ethics, (2) Care of Dental Equipment, (3) Chairside Assisting, (4) Dental Office Management, (5) Dental Anatomy, (6) Dental Pathology, (7) Bacteriology and Sterilization, (8) Anesthesia, (9) Dental Roentgenology, (10) Oral Hygiene and Pedodontia, (11) Diet and Nutrition, (12) Orthodontia, (13) Pharmacology, (14) Treatment of Emergencies, (15) Carvings and Drawings, (16) Impression Material and Models, (17) Base Plates and Bites, and (18) Inlays and Crowns. Two required references and supplementary references are listed. Student progress record forms, assignment sheets, and information sheets covering information which was not available in the references are included. An equipment list is given in the appendix. A test booklet (VT 000 243) and answer booklet (VT 000 242) are available for use with the guide. The study guide and unit tests are available for $3.75 and the answer booklet (VT 000 242) for $2.50 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (PS)

DENTAL TECHNICIANS

VT 002 499
Supervised Study Guide for Dental Laboratory Technician.

Cockrum, Jim
Texas Univ., Austin. Dept. of Industrial Education
Texas Education Agency, Austin. Industrial Educ. Div.
Pub Date - Jun67
DOCUMENT NOT AVAILABLE FROM EDRS 167p.

*STUDY GUIDES, *HEALTH OCCUPATIONS EDUCATION, *DENTAL TECHNICIANS, GRADE 11, GRADE 12, STUDENT RECORDS, *COOPERATIVE EDUCATION, INDIVIDUAL INSTRUCTION,

The individual study guide was designed for use in presenting related technical instruction for laboratory technician assistant to employed students in junior and senior high school classes or a technical institute in a 2-year, part-time program (360 hours). The material was developed by a committee of coordinators at the state level. A progress record form correlates job and class activities. Units are (1) Introduction (nature of work and opportunities for the dental laboratory technician), (2) Dental Materials, (3) Dental Anatomy, (4) Full Dentures, (5) Removable Partial Dentures, and (6) Inlays, Crowns, and Fixed Partial Dentures. Assignment sheets for specific subjects within each unit give aim, introductory information, reference, and questions. A required and other suggested references are listed. The answer key (VT 001 842) to assignment sheets and unit tests, $2.40 each, and the study guide and unit tests (VT 002 533) $6.25 a set, are available from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (PS)

VT 003 126
Dental Laboratory Technology, A Course of Study.

Brown, Walter C.
Missouri Univ., Columbia. Dept. of Industrial Education
Missouri State Dep of Educ, Jefferson City. Ind Educ Sect
Pub Date - Sep65
MF AVAILABLE IN VT-ERIC SET 109p.

*STUDY GUIDES, *HEALTH OCCUPATIONS EDUCATION, *DENTAL TECHNICIANS, DENTISTRY, HIGH SCHOOLS, POST SECONDARY EDUCATION, *COOPERATIVE EDUCATION,

An analysis of dental laboratory technology and assignment sheets covering the related occupational information are for use by grade 11 students on an individual basis in a cooperative high school program for training dental laboratory technicians. The material was developed in consultation with specialists in dental technology, revised by an advisory committee, and prepared by research assistants. Assignment sheets for the 180 hours of related instruction include -- (1) Mouth Anatomy, (2) Dental Anatomy, (3) Tooth Forms, (4) Dental Materials, (5) Metals and Alloys, (6) Packing and Processing a Mold, (7) Finishing Dentures, (8) Repair of Broken Dentures, (9) Relining and Duplication of Dentures, (10) Tooth Arrangement, (11) Complete Dental Waxup, and (12) Articulators. Each assignment sheet gives information, reference, and objective-type questions. An instructor's key (VT 003 110) is available for 50 cents from Industrial Education, 103 Industrial Education Building, University of Missouri, Columbia, Missouri 65201. Copies of the study guide are available from the same source for $1.50 each. (PS)

DIESEL ENGINE MECHANICS

VT 005 685 ED 021 102
Automotive Diesel Maintenance 2. Unit I, Understanding Mechanical Clutches.

Human Engineering Inst., Cleveland, Ohio
Minnesota State Dept. of Education, St. Paul. Vocational Education
EDRS PRICE MF-$0.25 HC-$1.92
AM-2-1
Human Engineering Institute, Headquarters and Development Center, 2341 Carnegie Avenue, Cleveland, Ohio 44115 (rental $1.75 per week).
Pub Date - 7Dec66 46p.

*STUDY GUIDES; *TEACHING GUIDES; *TRADE AND INDUSTRIAL EDUCATION; *AUTO MECHANICS (OCCUPATION); DIESEL ENGINES; *EQUIPMENT MAINTENANCE; KINETICS; MOTOR VEHICLES; ADULT VOCATIONAL EDUCATION; TRANSPARENCIES; PROGRAMED MATERIALS; INDIVIDUAL INSTRUCTION; INSTRUCTIONAL FILMS; PROGRAMED INSTRUCTION

One of a 25-module course designed to upgrade the job skills and technical knowlege of diesel maintenance mechanics, this material was developed by industrial training and subject-matter specialists and tested in industrial training situations. The purpose of this first unit is to develop an understanding of components, operation, and adjustments of the different types of mechanical clutches used on diesel powered vehicles. The module consists of an instructor's guide, transparencies, and a list of suggested supplementary materials for 2 hours of group instruction, trainee text material, and a self-instructional branch programed training film "Learning About Mechanical Clutches" for self-paced individual instruction using an electronic tutor. A reproduction of the training film with program branching information is included so that it may be developed as printed material for use without the electronic tutor. Modules in this series are available as VT 005 685-VT 005 709. Modules for "Automotive Diesel Maintenance 1" are available as VT 005 655-VT 005 684. The 2-year program outline for "Automotive Diesel Maintenance 1 and 2" is available as VT 006 006. The text material, transaprencies, program training film, and the electronic tutor may be rented or purchased. (HC)

VT 005 655 ED 021 072
Automotive Diesel Maintenance 1. Unit 1, General Introduction to Diesel Engines.

Human Engineering Inst., Cleveland, Ohio
EDRS PRICE MF-$0.25 HC-$1.52
PTAM-1-1
Human Engineering Institute, Headquarters and Development Center, 2341 Carnegie Avenue, Cleveland, Ohio 44115 (rental $1.75 per week).
Pub Date - 29Sep65 36p.

*STUDY GUIDES; *TEACHING GUIDES; *TRADE AND INDUSTRIAL EDUCATION; *AUTO MECHANICS (OCCUPATION); *DIESEL ENGINES; ADULT VOCATIONAL EDUCATION; TRANSPARENCIES; PROGRAMED MATERIALS; INDIVIDUAL INSTRUCTION; INSTRUCTIONAL FILMS; PROGRAMED INSTRUCTION; MOTOR VEHICLES; EQUIPMENT MAINTENANCE

One of a 30-module course designed to upgrade the job skills and technical knowledge of diesel engine maintenance mechanics, this material was developed by industrial training and subject-matter specialists and tested in industrial training situations. The purpose of this first unit is to provide an introduction to diesel engines by developing an understanding of the differences between diesel and gasoline engines, diesel engine components, and diesel operation. The module consists of an instructor's guide, transparencies and a list of suggested supplementary materials for 2 hours of group instruction, trainee text material, and self-instructional branch programed training film "Diesel Automotive Maintenance--General Introduction" for self-paced individual instruction using an electronic tutor. A reproduction of the training film with program branching information is included so that it may be developed as printed material for use without the electronic tutor. Modules in this series are available as VT 005 655-VT 005 684. Modules for "Automotive Diesel Maintenance 2" are available as VT 005 685-VT 005 709. The 2-year program outline for "Automotive Diesel Maintenance 1 and 2" is available as VT 006 006. The text material, transparencies, programed training film, and the electronic tutor may be rented or purchased. (HC)

DRAFTSMEN

VT 005 177
Kiray, Leslie M.; Baxel, George H.
Structural Drawing Manual.

New Jersey State Dept. of Education, Trenton. Div. of Vocational Education
Rutgers, The State Univ., New Brunswick. Curriculum Lab.
MF AVAILABLE IN VT-ERIC SET.
Vocational-Technical Curriculum Laboratory, Rutgers University, 10 Seminary Place, New Brunswick, New Jersey 08903 ($2.00).
Pub Date - Jul68 193p.

*STUDY GUIDES; *TRADE AND INDUSTRIAL EDUCATION; *DRAFTSMEN; BUILDING DESIGN; *STRUCTURAL BUILDING SYSTEMS; POST SECONDARY EDUCATION; TECHNICAL EDUCATION

This guide is for student use in beginning and advanced architectural drafting courses for structural draftsmen in secondary or technical schools. It was developed by an individual to exemplify current structural practice in domestic structural design and building layout. Chapters cover (1) Foundation Construction, (2) Structural Steel Columns and Walls, (3) Steel Beams and Trusses, and (4) Roofing Materials and Construction. Each of the 18 units provides descriptive and technical data, illustrations, and review questions. The material is to be used by individual students under teacher supervision for 1 year. The document is printed with line drawings, photographs, and specification tables and includes a bibliography of eight related references. This guide should be used with the "Manual of Steel Construction" (6th edition) by the American Institute of Steel Construction, which provides other essential data. (EM)

VT 000 443
Supervised Study Guide in Drafting.

Texas Univ., Austin. Dept. of Industrial Education
Texas Education Agency, Austin. Industrial Educ. Div.
Pub Date - Jul66
DOCUMENT NOT AVAILABLE FROM EDRS 106p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *DRAFTSMEN, HIGH SCHOOLS, *DRAFTING, STUDENT RECORDS, INDIVIDUAL INSTRUCTION, *COOPERATIVE EDUCATION,

This study guide is for individual student use in cooperative training for juniors and seniors in drafting programs in area vocational or technical high schools. This third edition was developed by an instructional materials specialist and an advisory committee at the state level. The content objective is to develop related technical knowledge necessary for an entry-level draftsman. The units are (1) Instruments and Equipment, (2) Applied Geometry, (3) Freehand Lettering and Sketching, (4) Orthographic Projection, (5) Dimensions, (6) Sectional and Auxiliary Views, (7) Working Drawings, (8) Screw Threads, Gears, and Welding, (9) Pictorial Drawings, (10) Piping Drawings and Schematics, (11) Development Drawing, (12) Revolution and Rotation, (13) Architectural Drawing, (14) Structural Drawing, (15) Topographic Map Drawing, and (16) Reproduction of Drawings. The assignment sheets within each unit give the aim, introductory information, references, and questions. The material is to be used by individual students under teacher supervision for 2 years or 360 directed study hours. The teacher should be a high school coordinator with drafting knowledge. Students should be employed in cooperative programs. Supplementary materials include a progress record for recording completed job experiences and related study topics and a bibliography of required references and recommended films. An answer book (VT 000 441) is available for the study guide. This document is available with "Unit Tests for Supervised Study Guide in Drafting" (VT 000 442) for $4.00 from The Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (HC)

ELECTRICAL APPLIANCE SERVICEMEN

VT 002 047

Electrical Appliance Servicing, Individual Study, A Course of Study Designed for Cooperative Part-Time Students Employed in Electrical Appliance Service Shops.
Karnes, James B., ed.

Missouri Univ., Columbia. Dept. of Industrial Education
Missouri State Dep of Educ, Jefferson City. Ind Educ Sect

Aug66

DOCUMENT NOT AVAILABLE FROM EDRS 165p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *ELECTRICAL APPLIANCE SERVICEMEN, *HOME APPLIANCES, ELECTRICITY, HIGH SCHOOLS, *COOPERATIVE EDUCATION,
The related instructional materials in this course of study are for use by secondary or post-secondary students in cooperative or in-service trade and industrial programs. The course of study was originally developed by a graduate student, field tested, and refined in cooperation with subject matter specialists and a consultant committee. The present revision, the fourth, was prepared by a research assistant. The major objectives deal with the mastery of skills, technical and related information, and personal-social traits which are essential to a successful worker. Each assignment sheet presents introductory paragraphs, assignments, references, and objective-type questions for one of the 21 subjects, some of which are Fundamental Principles of Electricity, Home Electrical Wiring, Electric Ironers, and Air Conditioner. Job units and related material are coordinated in 2-column form. The student should be at least a junior in high school with basic mechanical and electrical prerequisites. This guide serves as a basis for 180 hours of related instruction by a qualified coordinator or teacher of in-service programs. Progress report forms for the student, employer, and instructor are included. The answers to assignment questions are available in VT 002 048. An instructor's guide is available for 50 cents. Answers and this guide are available for $1.50 from Industrial Education, 103 Industrial Education Building, University of Missouri, Columbia, Missouri 65201. (EM)

VT 003 116

Home Appliance Service, A Study Guide and Progression Record in Home Appliance Servicing for Use in a Cooperative Training Program. (Appliances such as Refrigerators, Televisions, and Radios are not Included, File, no. 741).

Alabama Univ., University. Dept. of Trade and Ind. Educ.
Pub Date - Oct63
MF AVAILABLE IN VT-ERIC SET 78p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *ELECTRICAL APPLIANCE SERVICEMEN, *HOME APPLIANCES, ELECTRICITY, HIGH SCHOOLS, STUDENT RECORDS, COOPERATIVE EDUCATION, The purpose of this guide is to provide direction for related study and means for checking on-the-job progress. It was developed at the state level by a committee of trade and industrial coordinators for cooperative education classes in grades 10, 11, and 12. Trade analysis forms for use by teacher and student provide space for checking progress in job performance and related study. Job sheets for the 63 steps of the analysis give the job type, reading assignments, and essay-type study questions. Examples of jobs are Fundamentals of Electricity, Check Electric Range Performance, Types of Coffee Makers, and Service Electric Fan. Reading assignments are keyed to four textbooks which are cited in the bibliography. The time required is 1 period per day for 2 years. Answers (VT 003 117) are available for $1.00 from Trade and Industrial Education, State Department of Education, P.O. Box 2847, University, Alabama 35486. Copies of the guide are available from the same source, $1.50 each. (EM)

ELECTRICAL OCCUPATIONS

VT 000 727
Learner's Manual for Basic Electricity.
Ohio State Dept of Ed, Columbus. Trade and Ind Ed Service
Pub Date - 63
MF AVAILABLE IN VT-ERIC SET 135p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *ELECTRICAL OCCUPATIONS, *ELECTRICITY, HIGH SCHOOLS, APPRENTICESHIPS, POST SECONDARY EDUCATION,

This study guide was prepared for student use as a beginning unit in basic electricity in a high school, apprenticeship, or trade extension electrical training program. The assignment sheets are correlated with "Instructor's Manual for Basic Electricity" (VT 000 726) and "Experiment Manual for Basic Electricity" (VT 000 728). The material was developed by a statewide instructional materials committee and was tested and validated in a pilot study. The units are (1) Mathematics, (2) The Electrical Circuit, (3) The Electric Current, (4) Resistance to Electric Current, (5) E.M.F. by Chemical Action, (6) Magnetism, (7) Electromagnetism, (8) E.M.F. by Induction, (9) Energy, Force, and Work, (10) Generators, (11) Motors, and (12) Meters and Measurements. The assignment sheets advance the learner from the simple to the more complex information. Many of the sheets contain "fill in" information which has not been included in the basic textbook. The assigned reading is to be studied and the appropriate answer written after each question. The questions are then to be reviewed to assure a thorough understanding. The sheets are to be graded by the teacher from answers provided in the Instructor's Manual and reviewed with the student. The teacher should be a skilled craftsman, and the students should be planning to enter or presently working in the electrical trades. This document is available for $1.42 from Ohio Trade and Industrial Education Service, Instructional Materials Laboratory, The Ohio State University, 1885 Neil Avenue, Columbus, Ohio 43210. (HC)

VT 000 714
Electronics, Learner's Manual.

Ohio State Dept of Ed, Columbus. Trade and Ind Ed Service
Pub Date - 66
MF AVAILABLE IN VT-ERIC SET 112p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *ELECTRICAL OCCUPATIONS, *ELECTRONICS, HIGH SCHOOLS, APPRENTICESHIPS, POST SECONDARY EDUCATION, TESTS,

This study guide was designed to assist the vocational high school, apprenticeship, or post-high school student in individual study of related technical information in electronics. The material was developed by a state-wide committee of local supervisors and instructors. An assignment outline presents 21 lesson titles with reading and problem assignments keyed to Nadon and Gelmine, "Industrial Electricity," (Van Nostrand, 1951) supplemental information sheets, and work sheets containing study questions. Some lesson titles are (1) Power Supplies, (2) Amplifiers, (3) Oscillators, (4) Photosensitive Devices, (5) Motor Control, and (6) Test Equipment. Study techniques for the use of this manual are suggested. The student should have a knowledge of basic electricity and be planning to enter or presently working in electronics or applied areas. The instructor should be a skilled tradesman. This document is available for $1.05 from Ohio Trade and Industrial Education Service, Instructional Materials Laboratory, The Ohio State University, 1885 Neil Avenue, Columbus, Ohio 43210. (HC)

ELECTRICAL WIRING

VT 000 724
Residential Wiring, Learner's Manual.

Ohio State Dept of Ed, Columbus. Trade and Ind Ed Service
Pub Date - 66
MF AVAILABLE IN VT-ERIC SET 120p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *ELECTRICAL OCCUPATIONS, *ELECTRICITY, HOUSING, HIGH SCHOOLS, POST SECONDARY EDUCATION, APPRENTICESHIPS, INDIVIDUAL INSTRUCTION, TESTS,

The purpose of this study guide is to assist the student in mastering the related technical knowledge for the electrical trade. It is designed as an individual instruction guide for use in apprenticeship training but may be adapted to vocational high school or post-secondary programs. The material was developed by a state-wide committee of secondary school and apprentice teachers and has been tested and validated in classroom use. Units are (1) Safety, (2) History, (3) Apprenticeship, (4) Underwriters and Code, (5) Basic Principles and Measurements, (6) Overcurrent Devices, (7) Wire, (8) Wiring, (9) Branch Circuits and Service Entrances, (10) Adequate Wiring, (11) Lighting, and (12) Motors. Assignment sheets within each unit contain objectives, assignment, related information, and questions. A series of practical exercises providing for application of knowledge are included at the end of the course. The assignments are keyed to the textbooks (1) Delmar Publishers, "Mathematics for the Electrical Trades" and

"Practical Problems in Mathematics-Electrical Trades" and (2) Richter, "Practical Electrical Wiring." Comprehensive objective-type tests are included periodically for checking student progress and ability. The students should be planning to enter or presently working in an electrical field. The teacher should be a skilled tradesman. An answer book (VT 000 725) is available. This study guide is available for $1.25 from Ohio Trade and Industrial Education Service, Instructional Materials Laboratory, The Ohio State University, 1885 Neil Avenue, Columbus, Ohio 43210. (HC)

VT 005 137
Electrical Wiring. Part 1, Workbook.

California State Dep of Educ, Sacramento. Bur of Ind Educ
Pub Date - 63
MF AVAILABLE IN VT-ERIC SET. 174p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *ELECTRICIANS, *APPRENTICESHIPS,

This study guide was planned by state educational advisory committees for use by electrical wiremen apprentices in the related technical phase of their training. Major units are (1) The Apprentice Electrical Wireman, (2) Safe Practices for the Wireman, (3) Introduction to Electricity, (4) Tools, Equipment, and Materials, (5) Workmen's Legal Rights and Benefits, and (6) Mathematics Review. Each of the 43 topics in these units provides related information or a text assignment and questions covering this information. This material is designed for 144 hours of instruction by a qualified journeyman. The student should be an indentured electrical apprentice. Illustrations are photographs or line drawings. A bibliography lists four textbooks and nine classroom references. Related study guides are VT 005 138, VT 005 139, and VT 005 140. This document is available for $2.00 from Bureau of Industrial Education, California State Department of Education, 721 Capitol Mall, Sacramento, California 95814. (EM)

VT 005 138
Electrical Wiring. Part 2, Workbook.

California State Dep of Educ, Sacramento. Bur of Ind Educ
Pub Date - 64
MF AVAILABLE IN VT-ERIC SET. 173p.
*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *ELECTRICIANS, *APPRENTICESHIPS,

This study guide was planned by state educational advisory committees for use by electrician apprentices in the related technical phase of their training. Major units are (1) D-C Electricity and Apparatus, (2) Blueprint Reading and Specifications, (3) Fundamentals of A-C Electricity, (4) Specialized Tools and Equipment, and (5) The Construction Industry and Atomic Energy. Each of the 31 topics in these units provides related information or a text assignment and questions covering this information. This material is designed for 144 hours of instruction by a qualified journeyman. The student should be an indentured electrician apprentice. Illustrations are photographs, line drawings, or architectural plans. A bibliography lists books recommended for each apprentice and for the classroom library. Related study guides are VT 005 137, VT 005 139, and VT 005 140. This document is available for $2.00 from Bureau of Industrial Education, California State Department of Education, 721 Capitol Mall, Sacramento, California 95814. (EM)

VT 005 139
Electrical Wiring. Part 3, Workbook.

Thyberg, Bruce * and others
California State Dep of Educ, Sacramento. Bur of Ind Educ
Pub Date - 65
MF AVAILABLE IN VT-ERIC SET. 166p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *ELECTRICIANS, *APPRENTICESHIPS,

This study guide was planned by state educational advisory committees for use by electrician apprentices in the related technical phase of their training. Major units are (1) General Wiring Methods, (2) Residential Wiring Methods, (3) Commercial Wiring Methods, (4) Industrial Wiring Methods, and (5) Lighting. Each of the 41 topics in these units provides related information or a text assignment and questions covering this information. This material is designed for 144 hours of instruction by a qualified journeyman. The student should be an indentured electrician apprentice. Illustrations are photographs or line drawings. The bibliography contains six textbooks and three references. Related study guides are VT 005 137, VT 005 138, and VT 005 140. This document is available for $2.00 from Bureau of Industrial Education, California State Department of Education, 721 Capitol Mall, Sacramento, California 95814. (EM)

VT 005 140
Electrical Wiring. Part 4, Workbook.

Alerich, Walter N.
California State Dep of Educ, Sacramento. Bur of Ind Educ
Pub Date - 65
MF AVAILABLE IN VT-ERIC SET. 115p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *ELECTRICIANS, *APPRENTICESHIPS,

This study guide was planned by state educational advisory committees for use by electrician apprentices in the related technical phase of their training. Major units are (1) A-C Apparatus, (2) Manual and Electromagnetic Controllers, (3) Transformers, and (4) Basic Industrial Electronics. Each of the 34 topics in these units provides related information or a text assignment and questions covering this information. This material is designed for 144 hours of instruction by a qualified journeyman. The student should be an indentured electrician apprentice. Illustrations are photographs or line drawings. The bibliography lists six texts and one reference. Related study guides are VT 005 137, VT 005 138, and VT 005 139. This document is available for $2.00 from Bureau of Industrial Education, California State Department of Education, 721 Capitol Mall, Sacramento, California 95814. (EM)

ELECTRICIANS

VT 000 706
Electric Lineman, Learner's Manual - Series 100.

Ohio State Dept. of Education, Columbus. Trade and Industrial Education Service
MF AVAILABLE IN VT-ERIC SET.
ELTL-8
Ohio Trade and Industrial Education Service, Instructional Materials Laboratory, te University, 1885 Neil Avenue, Columbus, Ohio 43210 ($1.82).
Pub Date - 66 207p.

*STUDY GUIDES; *TRADE AND INDUSTRIAL EDUCATION; *ELECTRICIANS; *ADULT VOCATIONAL . TION

This study guide is for use by students employed as electrical linemen. It was developed by a state and national committee and subject matter specialists. A series of 45 job training procedures and 54 assignment sheets is designed to assist the beginning lineman in learning the proper job procedures and the related technical information of the line craft. A recommended step-by-step procedure with safety precautions and key points for its completion is given for each job. Each assignment sheet provides a study guide to the most essential information from the assigned references. The job procedures include such jobs as (1) handling poles, (2) digging pole holes, (3) framing poles, (4) installing anchors, (5) splicing conductors, and (6) installing meters and services. A list of tools and equipment contains photographs and brief notes about their use. Other documents are VT 000 708, VT 000 710, and VT 000 712. (PA)

VT 000 708
Electric Lineman, Learner's Manual-Series 200

Ohio State Dept. of Education, Columbus. Trade and Industrial Education Service
MF AVAILABLE IN VT-ERIC SET.
ELTL-9
Ohio Trade and Industrial Education Service, Instructional Materials Laboratory, Ohio State University, 1885 Neil Avenue, Columbus, Ohio 43210 ($1.88).
Pub Date - 58 231p.

*STUDY GUIDES; *TRADE AND INDUSTRIAL EDUCATION; *ELECTRICIANS; *ADULT VOCATIONAL EDUCATION

This study guide is for use by students employed as electrical linemen. It was developed by a state and national committee and subject matter specialists. A series of 55 job training procedures and 56 assignment sheets is designed to assist persons in learning the proper procedures and the related technical information of the line craft. A recommended step-by-step procedure with safety precautions and key points for its completion, are given for each job. The assignment sheets provide study guides for the most essential information based on the assigned references. The jobs include (1) grounding of trucks, (2) digging holes by mechanical means, (3) pole climbing techniques, (4) installing crossarms, (5) tying in conductors, and (6) installing protective grounds. Other related documents are VT 000 706, VT 000 710, and VT 000 712. (PA)

VT 000 710
Electric Lineman, Learner's Manual - Series 300.

Ohio State Dept. of Education, Columbus. Trade and Industrial Education Service
MF AVAILABLE IN VT-ERIC SET.
ELTL-10
Ohio Trade and Industrial Education Service, Instructional Materials Laboratory, Ohio State University, 1885 Neil Avenue, Columbus, Ohio 43210 ($1.50).
Pub Date - 66 137p.

*STUDY GUIDES; *TRADE AND INDUSTRIAL EDUCATION; *ELECTRICIANS; *ADULT VOCATIONAL EDUCATION

This study guide is for use by students employed as electrical linemen. It was developed by a state and national committee and subject matter specialists. A series of 21 job training procedures and 29 assignment sheets was prepared to assist persons in learning the proper job procedures and the related technical information of the line craft. For each job, there is a recommended step-by-step procedure along with safety precautions and the key points for its completion. Each assignment sheet provides a study guide for the most essential information based on the assigned references. Training procedures are given for such jobs as (1) pole top rescue, (2) sagging conductors, (3) installing transformers, (4) lightning arresters, (5) switches, (6) installing regulators, and (7) energizing and de-energizing lines. Other related documents are VT 000 706, VT 000 708, and VT 000 712. (PA)

VT 000 712
Electric Lineman, Learner's Manual - Series 400.

Ohio State Dept. of Education, Columbus. Trade and Industrial Education Service
MF AVAILABLE IN VT-ERIC SET.
ELTL-11
Ohio Trade and Industrial Education Service, Industrial Materials Laboratory, Ohio State University, 1885 Neil Avenue, Columbus, Ohio 43210 ($1.75).
Pub Date - 62 201p.

*STUDY GUIDES; *TRADE AND INDUSTRIAL EDUCATION; *ELECTRICIANS; *ADULT VOCATIONAL EDUCATION

This study guide is for use by students employed as electrical linemen. It was developed by a state and national committee and subject matter specialists. Training procedures for 30 jobs and 41 assignment sheets were prepared to assist a person in learning the proper job procedures and the related technical information of the line craft. For each job, there is a recommended step-by-step procedure plus safety precautions and key points for its completion. Each assignment sheet provides a study guide for essential information based on the assigned references. Procedures cover such jobs as (1) testing for polarity, (2) use and operation of the transit, (3) installing capacitor, (4) substation operation, (5) trouble shooting, (6) testing, and (7) moving the energized pole line. Other related documents are VT 000 706, VT 000 708, and VT 000 710. (PA)

VT 005 506
Wykes, Murray L.
National Electrical Code Study. Assignment Book.

Texas Univ., Austin. Dept. of Industrial Education
Texas Education Agency, Industrial Education Div.
Texas State Joint Apprenticeship and Training Committee for the Electrical Industry
DOCUMENT NOT AVAILABLE FROM EDRS.

Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712 ($1.40).
Pub Date - Oct61 102p.

*STUDY GUIDES; *TRADE AND INDUSTRIAL EDUCATION; *ELECTRICIANS; *ELECTRICITY; ADULT VOCATIONAL EDUCATION; *INDIVIDUAL INSTRUCTION

This guide is for individual student use in the study of the National Electric Code (NEC). It was developed by an instructional materials specialist and advisers. The course objective is to develop an understanding of the National Electric Code by applying it in actual electrical work. The 28 lessons covering various requirements of the NEC and the use of these requirements in the everyday work of the electricians include (1) Conduit Wiring, (2) Overcurrent Protection, (3) Code on Garages, (4) Hazardous Locations, and (5) Job Estimate and Work Sheet Layout. Each lesson assignment sheet gives the lesson subject, purpose, introductory information, references, directions, and questions. Questions and problems whhich present the most difficulty in each lesson are to be used to form a comprehensive course examination. There are four required books and one recommended reference book for the course. The suggested time allotment is 40 classroom hours. The teacher should be a journeyman electrician, and the students will usually be apprentice and journeyman electricians employed in the trade. The instructor's guide (VT 005 505) gives the answers to the study guide questions. (HC)

VT 000 323
Wykes, Murray L.
Conduit Bending for Wiremen, Assignment Book.

Texas Univ., Austin. Dept. of Industrial Education
Texas Education Agency, Austin. Vocational Div.
Texas State Joint Apprenticeship and Training Committee for the Electrical Industry
DOCUMENT NOT AVAILABLE FROM EDRS.
Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712 ($.80).
Pub Date - 60 38p.

*STUDY GUIDES; *TRADE AND INDUSTRIAL EDUCATION; *ELECTRICIANS; *PRACTICAL MATHEMATICS; ADULT VOCATIONAL EDUCATION; *INDIVIDUAL INSTRUCTION; APPRENTICESHIPS

This study guide is for individual student use in the study of mathematics relating to electrical conduit bending. It was developed by an instructional material specialist and advisers to acquaint the electrician with the mathematics necessary for conduit measurement and bending. Assignment sheets are used to guide the student's study of (1) the terminology of measurement for conduit bending, (2) triangle measurements used for conduit bending, (3) methods of bending conduit and tools used, (4) bending conduit elbows, (5) bending conduit kicks, and (6) bending conduit offsets and saddles. The assignment sheets give introductory information, references, directions, work examinations from the primary textbook, and study questions and problems. The material is to be used by the individual students under teacher direction for 20 hours. The teacher should be a journeyman electrician and the students will usually be journeymen or apprentices employed in the electrical trade. "Conduit Bending for Wiremen, Instructor's Book" (VT 000 324) provides answers to the work examinations and step-by-step solutions to study questions and problems. A study guide (VT 000 325) and an instructor's book (VT 000 326) are also available to direct the electrician's study of electrical meters. (HC)

VT 000 325
Wykes, Murray L.
Use of Electric Meters, Assignment Book.

Texas Univ., Austin. Dept. of Industrial Education
Texas Education Agency, Austin. Vocational Div.
Texas State Joint Apprenticeship and Training Committee for the Electric Industry
DOCUMENT NOT AVAILABLE FROM EDRS.
Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712 ($1.35).
Pub Date - Feb61 65p.

*STUDY GUIDES; *TRADE AND INDUSTRIAL EDUCATION; *ELECTRICIANS; *ELECTRICITY; ADULT VOCATIONAL EDUCATION; *INDIVIDUAL INSTRUCTION; APPRENTICESHIPS

This study guide for individual student use in the study of electric meters was developed by an instructional materials specialist and advisers to develop an understanding of electric meters and their use in test instruments. Assignment sheets are used to direct the student's study of (1) basic principles of meters, (2) current and voltage measurement, (3) resistance measurement, (4) power measurement, (5) instruments for use at power, audio, and R-F frequencies, (6) multi-range and multi-function instruments, (7) vacuum-tube voltmeters, (8) meter applications, and (9) electrical tests and measurements. The assignment sheets give introductory information, references, supplementary information, and study questions. The material is to be used by the individual student under teacher direction for 30 hours. The teacher should be a journeyman electrician and the students will usually be journeymen or apprentices employed in the elctrical trade. "Use of Electric Meters, Instructor's Book" (VT 000 326) provides answers to the study questions. A study guide (VT 000 323) and an instructor's book (VT 000 324) are also available to direct the electrician's study of the mathematics of conduit bending. (HC)

VT 003 625
Basic Electricity Series, No. A (First Year), Apprentice Training in Electrical Work, Related Instructional Material, Assignment Sheets and Information Sheets.

Hedinger, Howard E.
North Carolina State Board of Education, Raleigh.
Pub Date - Jun67
MF AVAILABLE IN VT-ERIC SET 102p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *ELECTRICIANS, *ELECTRICITY, POST SECONDARY EDUCATION, TESTS, *APPRENTICESHIPS, This study guide, the first of a four-unit series, is for individual student use in studying technical information in the first year of the related technical phase of post-secondary electrician apprenticeship training. It was developed by a curriculum committee and the educational committee of the National Electrical Contractors of North Carolina. The material was designed by subject matter specialists, tested on a small group, and used in apprenticeship programs. Assignment and information sheets are included for 28 lessons in the areas of basic mathematics and orientation, fundamentals of electricity, and National Electrical Code. They contain textbook references, introduction and directions, and problems. The minimum class time is 144 hours per year. The teacher should be a journeyman tradesman, and the students should be 18 years old and employed as apprentices in an electrical construction trade. Supplementary materials include unit tests to be given approximately every six weeks and a final examination. Correlated lesson plans for the instructor are given in VT 003 624. Documents of the four-unit series are listed as VT 003 624 through VT 003 631. (HC)

VT 002 043
Electrical Construction (Interior Wiring), A Course of Study Designed for Cooperative Part-Time Students Employed in Electrical Construction Work.

Karnes, James B.
Missouri Univ., Columbia. Dept. of Industrial Education
Missouri State Dept. of Education, Jefferson City
Pub Date - Jan67
MF AVAILABLE IN VT-ERIC SET 106p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *ELECTRICIANS, *ELECTRICITY, *HOUSING, HIGH SCHOOLS, INDIVIDUAL INSTRUCTION, COOPERATIVE EDUCATION,

This study guide is for student use in cooperative training programs for junior and senior students in electrical construction in high schools. It was developed by research assistants and advisory consultants, tested in the field, and revised periodically. The content objective is to develop the technical related knowledge basic to an intelligent understanding of interior wiring. An analysis of electrical construction work is grouped into Fundamentals of Electricity, Planning, Wiring, and Estimating. These are analyzed in two-column form into what the worker should be able to do and what the worker should know. Both are correlated with the assignment sheets which give an introductory statement, assignment, references, and objective-type questions to check attainment. The material is to be used by the individual student under teacher supervision for 180 hours of directed study. The teacher should be a qualified coordinator, and the students should have proper prerequisites. Supplementary materials include selected reference materials and a progress record for recording the completion of job experiences and related study. An answer key (VT 002 044) is available. This document is available for $1.50 from Industrial Education, 103 Industrial Education Building, University of Missouri, Columbia, Missouri 65201. (HC)

VT 003 627
Basic Electricity Series, No. B (Second Year), for Apprentices Employed in Electrical Work, Assignment Sheets and Information Sheets.

Hedinger, Howard E.
North Carolina State Board of Education, Raleigh.
Pub Date - Jun67
MF AVAILABLE IN VT-ERIC SET 107p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *ELECTRICIANS, *ELECTRICITY, POST SECONDARY EDUCATION, TESTS, *APPRENTICESHIPS,

This study guide, the second of a four-unit series, is for individual student use in acquiring technical information in the second year of the related technical phases of post-secondary electrician apprenticeship training. It was developed by a curriculum committee of subject matter specialists and the educational committee of the National Electrical Contractors of North Carolina, tested on a small group, and used in apprenticeship programs. Assignment and information sheets for 30 lessons cover lighting and lamps, transformers, A.C. motors, and the National Electrical Code in terms of wiring methods. They contain textbook references and problem exercises. The teacher of this 144-hour course should be a journeyman of the trade, and the students should be 18 years old and employed as apprentices in an electrical construction trade. Supplementary materials include unit tests to be for approximately every 6 weeks and a final examination. Correlated lesson plans for the instructor are given in VT 003 626. Documents of the series are listed as VT 003 624 through VT 003 631. (HC)

VT 003 629
Basic Electricity Series, No. C (Third Year), Apprentice Training in Electrical Work, Related Instructional Material, Assignment Sheets and Information Sheets.

Hedinger, Howard E.
North Carolina State Board of Education, Raleigh
Pub Date - Aug67
MF AVAILABLE IN VT-ERIC SET 89p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *ELECTRICIANS, *ELECTRICITY, POST SECONDARY EDUCATION, TESTS, *APPRENTICESHIPS,

This study guide, the third of a four-unit series, is for individual student use in acquiring technical information in the third year of the related technical phase of post-secondary electrician apprenticeship training. It was developed by a curriculum committee of subject matter specialists and the educational committee of the National Electrical Contractors of North Carolina, tested on a small group, and used in apprenticeship programs. Assignment and information sheets for 28 lessons cover fundamentals of A.C. electricity, the National Electrical Code, in terms of installation in hazardous areas, and motor controls. They contain textbook references and problem exercises. The teacher of the 144-hour course should be a journeyman tradesman, and the students should be 18 years old and employed as apprentices in an electrical construction trade. Supplementary materials include unit tests for approximately every six weeks and a final examination. Correlated lesson plans for the instructor are given in VT 003 626. Documents of the series are listed as VT 003 624 through VT 003 631. (HC)

VT 003 631
Basic Electricity Series, No. D (Fourth Year), Electrical Apprentice Technical Training Program, Assignment Sheets and Information Sheets.

Hedinger, Howard E.
North Carolina State Board of Education, Raleigh
Pub Date - Mar65
MF AVAILABLE IN VT-ERIC SET 109p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *ELECTRICIANS, *ELECTRICITY, POST SECONDARY EDUCATION, TESTS, *APPRENTICESHIPS,

This study guide, the fourth of a four-unit series, is for individual student use in acquiring technical information in the fourth year of the related technical phase of post-secondary electrician apprenticeship training. It was developed by a curriculum committee of subject matter specialists and the educational committee of the National Electrical Contractors of North Carolina, tested on a small group, and used in apprenticeship programs. Assignment and information sheets for 38 lessons cover the National Electrical Code in terms of wiring methods, motor controls, and electronic controls. They contain textbook references and problem exercises. The teacher of the 144-hour course should be a journeyman tradesman, and the students should be 18 years old and employed as apprentices in an electrical construction trade. Supplementary materials for blueprint reading for commercial and industrial installations are recommended. Unit tests and a final examination are included. Correlated lesson plans for the instructor are given in VT 003 630. Documents of the series are listed as VT 003 624 through VT 003 631. (HC)

ELECTRIC MOTOR REPAIR

VT 001 895

Supervised Study Guide in Electric Motor Repair.
Self, Oscar A.

Texas Univ., Austin. Dept. of Industrial Education

Jan67

DOCUMENT NOT AVAILABLE FROM EDRS 172p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *ELECTRIC MOTOR REPAIRMEN, ELECTRICITY, GRADE 11, GRADE 12, *COOPERATIVE EDUCATION,
The related technical information in this guide is for use by junior and senior students in a 2-year cooperative training program in an area vocational or technical high school. The material was prepared by a trade instructor and an advisory committee. Some of the 15 major areas of study are -- (1) Circuits and Splicing, (2) Use and Care of Hand Tools and Test Equipment, (3) Magnetism and Electromagnetism, (4) Alternating-Current Fundamentals, (5) Alternating-Current Circuits, (6) Single-Phase Induction Motors, (7) Repulsion Type Motors, (8) Three-Phase Motors, and (9) The National Electrical Code. Assignment sheets present the lesson subject, aim, introductory information, study references, and questions. Information sheets are included for material not

available or not suitably presented in the references. Study is to be supervised by a related subjects teacher or teacher-coordinator. A progress record is provided for teacher and student use. The bibliography lists required and supplementary references. The study guide and unit tests (VT 001 894) are available for $5.00 per set from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (HC)

ELECTRONICS

VT 007 177
Basic Electronics 1; Learner's Manual.

Ohio State Dept. of Education, Columbus. Trade and Industrial Education Service
MF AVAILABLE IN VT-ERIC SET.
Ohio Trade and Industrial Education Service, Instructional Materials Laboratory, The Ohio State University, 1885 Neil Avenue, Columbus, Ohio 43210 ($3.75).
Pub Date - 68 289p.

*STUDY GUIDES; MANUALS; *TRADE AND INDUSTRIAL EDUCATION; *ELECTRONICS; GRADE 11; GRADE 12; ADULT VOCATIONAL EDUCATION

This study guide is for student use in pre-employment industrial electronics courses. It was developed by a statewide committee of teachers and supervisors and covers 140 lessons such as (1) History of Electronics and Communications, (2) Voltage, (3) Resistance, (4) Static and Dynamic Tube Characteristics, (5) Combination Circuits, (6) Magnetic Circuits, (7) Voltmeters, (8) Superhet Oscillators and Tuning, (9) Transistor Familiarization, (10) Formation of P and N Type Junctions, (11) Transistor Gain, (12) Common Emitter Circuits, (13) Typical Transistor Application, (14) Power Transistors, and (15) Tetrode Transistors. Each lesson is keyed to a lecture or reference and provides several study questions with additional space for additions by the instructor. This guide was designed for a 1-year course. Related documents which should be used with this manual are an instructor's manual (VT 007 178) and an experiment manual (VT 007 179). (EM)

FEED INDUSTRY

VT 001 195 ED 013 893

Feed Sales and Serviceman. (Teachers Copy).
Wiggs, J. T.

Texas Agr. and Mechanical Univ., College Station

Texas Education Agency, Austin

66

EDRS Price MF-$0.27 HC-NOT AVAILABLE FROM EDRS 191p.

*VOCATIONAL AGRICULTURE, *COOPERATIVE EDUCATION, *FEED INDUSTRY, *AGRICULTURAL SUPPLY OCCUPATIONS, OCCUPATIONS, *STUDY GUIDES, TESTS, ANSWER KEYS, BIBLIOGRAPHIES.

The purpose of this document is to provide a guide to study for vocational agriculture cooperative education students preparing for employment in feed sales and service. The material was designed by subject matter specialists on the basis of state advisory committee recommendations, tested in operational programs, and refined. Units in the course are -- (1) Agricultural Salesmanship, (2) Feed Business Organization and Function, (3) Business Procedures, (4) Service Functions, (5) Regulations, (6) Ration Formulation, (7) Feed Preparation, and (8) Related Agricultural Supplies and Service. The course is designed for 175 periods of 50 minutes, for male and female students, 16 to 20 years of age, who are employed part-time in the industry. Supplemental textbooks, bulletins, and commercial data are necessary, and lists are provided in the document. The printed document is looseleaf. This document is available in limited numbers for $2.50 each from Agricultural Education Teaching Materials Center, Texas Agricultural and Mechanical University, College Station, Texas 77843. (JM)

FEED MERCHANDISING

VT 000 144
Feed and Farm Supplies.

Duncum, William C.
Texas Univ., Austin. Dept. of Distributive Education
Texas Education Agency, Austin. Distr. Educ. Service
Pub Date - Jan66
DOCUMENT NOT AVAILABLE FROM EDRS 163p.

*TEXTBOOKS, *STUDY GUIDES, *DISTRIBUTIVE EDUCATION, *AGRICULTURAL SUPPLIES, *MERCHANDISING, HIGH SCHOOLS, POST SECONDARY EDUCATION, *INDIVIDUAL INSTRUCTION,

This manual is to be used in directed individual instruction by high school, junior college, and area vocational school distributive education (DE) students who have career objectives in the area of feed and farm supplies merchandising. The materials were developed by a DE teacher-coordinator with a background and experience in the area of merchandising. The manual has two parts, an assignment section containing 41 assignments and an information section for use as reference. Subject areas are (1) Your Job as a Feed Salesman, (2) Feed as Merchandise, (3) How Feeds Are Used, (4) Basic Feeds, (5) Feeding Standards, and (6) Related Merchandise. Each assignment consists of subject title, explanation, reference to information section, questions, and projects. A bibliography is also included. This document is available for $3.00 from Instructional Materials Laboratory, Distributive Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (MM)

FERTILIZER SALES

VT 000 990 ED 013 890

Fertilizer Sales and Serviceman. (Teachers Copy).
Wiggs, J. T.

Texas Agr. and Mechanical Univ., College Station
Texas Education Agency, Austin

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EDRS Price MF-$0.36 HC-NOT AVAILABLE FROM EDRS 229p.

*STUDY GUIDES, *VOCATIONAL AGRICULTURE, *FERTILIZERS, COOPERATIVE EDUCATION, ANSWER KEYS, TESTS, BIBLIOGRAPHIES, *AGRICULTURAL SUPPLY OCCUPATIONS.

The purpose of this document is to provide a study guide for students preparing to be fertilizer sales and servicemen in a cooperative education program. It was designed by subject matter specialists on the basis of recommendations by a state advisory committee, tested in operational programs, and refined by a vocational agriculture teacher. Units included in the course are -- (1) agricultural salesmanship, (2) business organization and function, (3) business procedures, (4) fertilizer, (5) soils and soil problems, (6) fertilizer nutrient sources, (7) plant food element functions, (8) fertilizer use principles, (9) fertilizer application methods, and (10) regulations and control. Materials in each unit include information sheets, assignment sheets, assignment answer sheets, topic tests, and test answer sheets. The material may be appropriately used in a vocational agriculture cooperative education program for student reading and as a guide to study. Students should be employed part-time in fertilizer sales and service, male or female, and 16 to 20 years old. The course would require 175 periods of 50 minutes each. The printed document is looseleaf. This document is available in limited numbers for $2.50 each from the Agricultural Education Teaching Materials Center, Texas Agricultural and Mechanical University, College Station, Texas, 77843. (JM)

FIRE FIGHTERS

VT 000 723 ED 016 031
Fire Service Training, Learner's Workbook, Basic Course.

Ohio State Dep of Ed, Columbus. Trade and Ind Ed Service
FTLM-2
Pub Date - Jan66
EDRS PRICE MF-$0.50 HC-$4.08 102p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *FIRE FIGHTERS, ADULT VOCATIONAL EDUCATION,

Students may use this study guide in a 34-hour fire service training extension program to improve their competencies and skills in the specialized field of fire service. It was developed by a statewide committee of fire fighting consultants and advisory groups. The 26 assignment sheets, keyed to the chapters in the fire service training instructional materials manual (VT 000 721), are designed to assist the student in mastering both the technical and practical knowledge of the instructional materials and the instructor's presentations. Some of the assignment sheets are (1) Community Fire Service, (2) Water as Used in Fire Fighting, (3) Fire Pumps, (4) Ladders, (5) Rescue, (6) Post-Mortem Conference, (7) Inspections, and (8) Radiation Hazards. The material is to be used by individual students under teacher direction. The teacher must be a qualified fireman, and the students should be volunteer or employed full-time firemen. Answers to the assignment sheets are given in the instructor's manual (VT 000 722). This document is available for 75 cents from Ohio Trade and Industrial Education Service, Instructional Materials Laboratory, The Ohio State University, 1885 Neil Avenue, Columbus, Ohio 43210. (HC)

FLOOR LAYERS

VT 002 784 ED 014 558
Floor Covering. Part 1, Resilient Coverings. (Workbook).

California State Dep of Ed, Sacramento. Bur of Ind Ed.
Pub Date - 65
EDRS PRICE MF-$0.75 HC-NOT AVAILABLE FROM EDRS 187p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *FLOOR LAYERS, *FLOORING, APPRENTICESHIPS,

The information in this study guide was developed for use in related technical instruction in apprentice training for the floor covering trade. The material was written by trade instructors and journeymen under the direction and coordination of the State Educational Advisory Committee for the Floor Covering Trade and others. The units are (1) Introduction to the Trade, (2) Materials of the Trade, (3) Blueprint Reading and Estimating, (4) Surface Preparation, (5) Tile Layout and Installation, (6) Sheet Goods, (7) Coving Sheet Goods, (8) Special Jobs, and (9) Repair and Maintenance. Each is explained by an introductory statement and divided into topics which contain an assignment from a supplementary text or pamphlet, an introduction, a section of related information, and checkup questions for student self-evaluation. A record of student progress may be kept in the study guide index. The study of this 144-hour course by indentured apprentices on a group or individual basis is to be directed by a qualified journeyman of the trade. Line-drawing and photographic illustrations are included. A list of supplementary instructional materials includes four recommended books and three films. Testbooks and final examinations are available to instructors. This document is available for $2.25 from Bureau of Industrial Education, California State Department of Education, 721 Capitol Mall, Sacramento, California 95814. "Floor Covering, Part 2, Carpeting," VT 002 992, is also available. (HC)

VT 002 992 ED 014 563
Floor Covering. Part 2, Carpeting. (Workbook).

California State Dep of Educ, Sacramento. Bur of Ind Educ
Pub Date - 66
EDRS PRICE MF-$0.50 HC-NOT AVAILABLE FROM EDRS 112p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *FLOOR LAYERS, *FLOORING, *APPRENTICESHIPS,

The information in this study guide was developed for use in related technical instruction in apprentice training for the floor covering trade. The material was written by trade instructors and journeymen under the direction of the State Educational Advisory Committee for the Floor Covering Trade. The units are (1) Introduction to the Trade, (2) Materials of the Industry, (3) Tools of the Trade, (4) Carpet Preparation, (5) Carpet Installation, and (6) Carpet Repairs. The units are divided into study topics each of which has an introduction of background information with an outline of major points in question form, a section of related information, a study assignment from supplementary materials, and a checkup test of true-false questions for student self-evaluation. Photographic and line-drawing illustrations are included. A record of topics completed may be kept in the study guide index. The study of this 144-hour course by indentured apprentices on a group or individual basis is to be directed by a qualified journeyman of the trade. A list of supplementary instructional materials is provided. Testbooks and final examinations are available to instructors. This document is available for $2.25 from Bureau of Industrial Education, California State Department of Education, 721 Capitol Mall, Sacramento, California 95814. "Floor Covering, Part I -- Resilient Coverings," VT 002 784, is also available. (HC)

FLORIST WORKERS
VT 002 035

Floristry, A Course of Study Designed for Cooperative Part-Time Students Employed in Florist Shops.

Karnes, James B., ed.

Missouri Univ., Columbia. Dept. of Industrial Education

Feb67

DOCUMENT NOT AVAILABLE FROM EDRS 140p.

INDIVIDUAL INSTRUCTION, *FLORIST WORKERS, *COOPERATIVE EDUCATION, FLORICULTURE, OCCUPATIONAL INFORMATION, SALESMANSHIP, HIGH SCHOOLS, POSTSECONDARY EDUCATION, *STUDY GUIDES,

Analysis of the work of the florist, together with assignment sheets covering the related occupational information to be taught by the school, made up this course of study prepared for teaching florist work on an individual basis in a part-time cooperative occupational education program. Developed by research assistants and an advisory committee after conslutation with personnel in the florist industry, this 180-hour related instruction is for use on the secondary and post-secondary levels. One information sheet and 23 assignment sheets, each with references and a test, are provided. Unit objectives are listed under job training and related information. Examples of the units are -- (1) Location and Layout of the Florist Shop, (2) Fixtures, Equipment, and Utilities, (3) Types, Care, and Treatment of Cut Flowers, (4) Supplies, Buying, Pricing, the Grower and Wholesaler, (5) Interior Display and Window Decoration, (6) Soils and Gravel Culture, and (7) Greenhouse Production of Potted Plants. This mimeographed document is available for $1.50 from Industrial Education, 103 Industrial Education Building, University of Missouri, Columbia, Missouri 65201. Separate instructor's keys (VT 002 034) are available from the same source for 50 cents each. (SL)

VT 000 186

Floristry, Merchandising and Services.

Gross, Lanis
Texas Univ., Austin. Industrial and Business Training
Texas Education Agency, Austin. Distr. Educ. Service

Pub Date - Aug65
DOCUMENT NOT AVAILABLE FROM EDRS 154p.

*TEXTBOOKS, *STUDY GUIDES, *DISTRIBUTIVE EDUCATION, *FLORIST WORKERS, *MERCHANDISING, FLORICULTURE, HIGH SCHOOLS, POST SECONDARY EDUCATION, INDIVIDUAL INSTRUCTION,

This study guide is for use as directed individual study by high school, junior college, or vocational school distributive education (DE) students who have career objectives in this area of floristry. It was developed by a DE teacher-coordinator with specialized experience in floristry merchandising. It contains an assignment section of 43 lessons and an information section to be used for reference in completing assignments. Some of the lesson topics are (1) Floristry as a Career, (2) Buying Flowers for Resale, (3) Selling in the Flower Shop, (4) Answering the Telephone and Getting the Order Correct, (5) Making the Delivery, (6) Wire Organizations, (7) Preparation to Cut Flowers, (8) Care of Pot Plants, (9) Form, (10) Balance and Scale, and (11) Wiring Flowers. This document is available for $3.50 from Instructional Materials Laboratory, Distributive Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. An answer book (VT 000 187) is also available for $2.50 from the same source. (MM)

FOOD SERVICE

VT 002 095

Food Service, A Course of Study Designed for Cooperative Part-Time Students Employed in Food Service Work.
Karnes, James B., ed.

Missouri Univ., Columbia. Dept. of Industrial Education

May66

DOCUMENT NOT AVAILABLE FROM EDRS 114p.

*COOPERATIVE EDUCATION, *FOOD SERVICE OCCUPATIONS, *INDIVIDUAL INSTRUCTION, *STUDY GUIDES, HIGH SCHOOLS, OCCUPATIONAL INFORMATION, POSTSECONDARY EDUCATION, *DISTRIBUTIVE EDUCATION,
An analysis of food service, together with assignment sheets covering the related occupational information to be taught by the school, make up this study guide prepared for teaching food service workers on an individual basis in a cooperative part-time program. Developed by an advisory committee, research assistants, and food service specialists, this 180-hour course of study was developed for use on the secondary level but can be used on the post-secondary and adult levels, also. Seven information sheets and 17 assignment sheets, each with references and a test, are provided. Unit objectives are listed under job training and related information. Examples of the units are -- (1) Care of Equipment, Sanitation, and Safety, (2) Relation with the Public, (3) Setting the Table, (4) Serving the Order, (5) Writing and Planning the Menu, and (6) Restaurant Management. This mimeographed document is available for $1.50 from Industrial Education, 103 Industrial Education Building, University of Missouri, Columbia, Missouri 65201. A separate instructor's key (VT 002 094) is available from the same source for 50 cents. (SL)

VT 007 524
Herbster, Corene; Heidtbrink, Marilyn, Ed.
A Course in Food and Nutrition (Homemaking IIIx-67). Material for the Student.

Nebraska Univ., Lincoln. Univ. Extension Div. Supervised Correspondence Study Series
MF AVAILABLE IN VT-ERIC SET.
University Extension Division, University of Nebraska, Lincoln, Nebraska 68508 ($3.00).
Pub Date - 67 264p.

*CORRESPONDENCE STUDY; *STUDY GUIDES; *HOMEMAKING EDUCATION; *FOODS INSTRUCTION; *NUTRITION INSTRUCTION; SECONDARY EDUCATION; ADULT EDUCATION; WORKBOOKS; SELF EVALUATION

A syllabus for secondary student use in directed study was developed by subject matter and correspondence study course specialists. Subject matter unit topics are: (1) Notes on Nutrition, (2) Management is for You, (3) Planning Makes for A Good Start, (4) Break for Breakfast, (5) The Light Meal, (6) Luncheons, (7) Meat in Your Meals, (8) Planning Your Dinner, (9) Dinnertime, and (10) Entertaining. Each unit contains factual information--illustrated with line drawings, several assignments, textbook references, worksheets, keyed self-check tests, and suggested time allotment. A correlated manual which contains tests for the supervisor to administer is available as VT 007 525. Study and mailing instructions and report forms for home experiences are included in the document. (FP)

FOOD SERVICE SUPERVISION

VT 002 097
Institutional Food Service Supervisor, A Course of Study Designed for Cooperative Part-Time Students Employed in Institutional Food Service.

Karnes, James B., ed.
Missouri Univ., Columbia. Dept. of Industrial Education
Missouri State Dep of Educ, Jefferson City. Ind Educ Sect
Pub Date - Aug63
MF AVAILABLE IN VT-ERIC SET 160p.

*TRADE AND INDUSTRIAL EDUCATION, *FOOD SERVICE SUPERVISORS, *STUDY GUIDES, *FOOD, *COOPERATIVE EDUCATION, GRADE 11, GRADE 12,

This course of study is designed for use by junior and senior high school students preparing for the occupation of institutional food service supervisor. Local and state subject matter specialists developed, tested, and periodically revised the program. Eighteen assignment sheets, each containing information, assignment, references, and questions, cover (1) The Food Service Supervisor, (2) Nutrition, (3) Function and Source of Food, (4) Menus and Diets, (5) Food Purchasing, (6) Principles of Food Preparation, (7) The Preparation of Food, (8) Serving the Food, (9) Records and Costs, (10) Sanitation, Safety, and Equipment, and (11) Advancement and Career Opportunities. What the worker should be able to do is correlated with what the worker should know in 2-column form. A bibliography of references and progress records for use by teacher, student, and employer are included. The material is to be used by the individual student under teacher supervision for 180 hours. This document is available for $1.50 from Industrial Education, 103 Industrial Education Building, University of Missouri, Columbia, Missouri 65201. (FP)

FOOD STORES

VT 000 589

Training for Students in the Food Industry. (Vocational Division Bulletin, no. 290, Distributive Education Series, no. 30, U.S. Government Printing Office, Washington, D.C.).

Beaumont, John A.

Office of Education, Washington, D.C.
OE-82004

61

DOCUMENT NOT AVAILABLE FROM EDRS 30p.

*DISTRIBUTIVE EDUCATION, *COOPERATIVE EDUCATION, *PROGRAM DEVELOPMENT, PROGRAM PLANNING, EMPLOYMENT OPPORTUNITIES, HIGH SCHOOLS, EMPLOYERS, *FOOD STORES, OCCUPATIONS.

Two major problem areas of the high school cooperative program in distribution, placement of students and their on-the-job experiences, are considered in this publication resulting from a joint undertaking by the food industry and the Distributive Education Branch. It illustrates how persons engaged in the food industry, the educators, and the consumers may work together. The food industry provides opportunity in many occupational areas including accounting, advertising, buying, finance, industrial relations, insurance, merchandising, personnel, public relations, real estate, sales promotion, store operations, transportation, and warehousing. This pamphlet analyzes an arrangement between the high school cooperative program and a food retailer. Besides career opportunities, the distributive education program, placement of students, experiences of the food store trainee, and classroom instruction involved are included. Special responsibilities of the teacher coordinator, the store manager, and the sponsor are emphasized. A job orientation plan and a flow chart showing various on-the-job experiences and procedures for the training of the food service trainee are included. Success of the food distribution training will depend partially on student placement, the knowledge of the student as to opportunities available in this field, and the willingness of industry to provide on-the-job training. This document is available as G.P.O. Number FS5.282:82004 for 15 cents from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. (MS)

VT 004 633 ED 017 713
Self-Study Program in Retail Store Operations, Units 1-13 and Study Guide.

Quaker Oats Co., Chicago, Ill.
Pub Date - 65
EDRS PRICE MF-$3.00 HC-NOT AVAILABLE FROM EDRS 777p.

*STUDY GUIDES, *DISTRIBUTIVE EDUCATION, *FOOD STORES, *RETAILING, ADULT VOCATIONAL EDUCATION, HIGH SCHOOLS, POST SECONDARY EDUCATION, *PROGRAMED INSTRUCTION,

The purpose of this self-study program is to provide a comprehensive view of total retail food store operations and to broaden the knowledge and understanding of those in or students and others preparing to enter the food industry. It was developed by the Quaker Oats Company for its salesmen but was expanded for use outside the company. The program consists of 13 separate self-study units and a study guide. The individual units vary from 40 to 72 pages in length, and each requires about 2 hours to complete. The units are (1) The Grocery Industry, Past, Present, and Future, (2) From the Producer to the Consumer, (3) The Supermarket Today, (4) Profit and the Supermarket, (5) The Supermarket Customer, (6) The Grocery Department, (7) The Meat Department, (8) The Produce Department, (9) The Dairy Department, (10) The Frozen Foods Department, (11) The Bakery Department, (12) The Front End, and (13) Other Departments in the Supermarket. The program incorporates programed learning as the self-instruction method. In addition to programed learning the units contain text material, diagrams, and illustrations. In a study of the effectiveness of the program by Western Michigan University, a comparison of pre- and post-test results for a typical group of store employees showed a significant improvement in the knowledge level of the group. This document is available for $4.95 from The Quaker Oats Company, 345 Merchandise Mart Plaza, Chicago, Illinois 60054. (MM)

FORESTRY

VT 005 492
Forestry (Production-Processing-Marketing-Services), Student Study Guide.

Alabama State Dept of Educ, Montgomery. Agr Educ Service
Pub Date - 66
MF AVAILABLE IN VT-ERIC SET. 19p.
*STUDY GUIDES, *VOCATIONAL AGRICULTURE, FORESTRY OCCUPATIONS, *FORESTRY, GRADE 11, GRADE 12, BIBLIOGRAPHIES,

Study questions and suggested learning activities concerned with principles and practices involved in producing, processing, marketing, and servicing forestry products are presented in this study guide for use by high school vocational agriculture students and teachers. It was designed by a district supervisor with the assistance of a subject-matter specialist, teacher educators, and an industry representative. The units are (1) Career Opportunities in Forestry, (2) Forestry in Alabama, (3) Forest Trees, (4) Protecting the Forest, (5) Measurements in Forestry, (6) Cuttings, (7) Reforestation, (8) Marketing Forest Products, (9) Multiple Use of Forests, and (10) Special Forestry Problems. The time allotment is to be determined by the local instructor. Teachers with general vocational agriculture college training and special instruction in forestry may use this material with 11th and 12th grade boys who have completed 2 years of vocational agriculture. Suggested references and a list of employment opportunities are included. (WB)

FURNITURE FINISHERS

VT 000 223
Supervised Study Guide in Furniture Finishing.

Texas Univ., Austin. Dept. of Industrial Education
Texas Education Agency, Austin. Industrial Educ. Div.
Pub Date - Sep61
DOCUMENT NOT AVAILABLE FROM EDRS 68p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *FURNITURE FINISHERS, *HOME FURNISHINGS, GRADE 11, GRADE 12,

This supervised study guide is for use by junior or senior students training for entry level finishing jobs. It was developed by an instructional materials specialist and an advisory committee at the state level. Assignment sheets cover (1) Orientation and Introduction to Furniture Finishing, (2) Paints, (3) Enamel, (4) Stain, (5) Filler, (6) Lacquer, (7) Spirit Varnishes, (8) Oil Varnishes, (9) Repair of Furniture, (10) Metal Finishing, (11) Refinish of Furniture, (12) Bleach, and (13) Rubbing and Polishing. Assignment sheets give subject, aim, introductory information, references, and questions. The material is to be used by part-time employed students for 2 years or 360 hours of directed study. The instructor should be a qualified coordinator. Supplementary materials include job and class progress record forms and a short bibliography of required and supplementary references. Both this guide and "Unit Tests for Supervised Study Guide in Furniture Finishing (VT 000 224) are available for $4.00. "Answer Book for Supervised Study Guide in Furniture Finishing" (VT 000 225) also includes answers for VT 000 224 and costs $1.95. These documents are available from the Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (EM)

FURNITURE UPHOLSTERY

VT 003 132

Furniture Upholstery and Repair, A Study Guide and Progression Record for Furniture Upholstery and Repair Students in a Cooperative Training Program. (File, no. 363-R).
Alabama Univ., University. Dept. of Trade and Ind. Educ.

Sep66

DOCUMENT NOT AVAILABLE FROM EDRS 107p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *FURNITURE UPHOLSTERERS, HOME FURNISHINGS, HIGH SCHOOLS, *COOPERATIVE EDUCATION, STUDENT RECORDS,

The purpose of this guide is to direct the related study of high school students in cooperative training programs in area vocational or comprehensive high schools. It was developed by a committee of trade and industrial coordinators. The contents include -- (1) reading assignments and essay-type questions keyed to six tests cited in the bibliography, (2) an 87-item trade analysis for furniture upholstery and repair, and (3) forms for recording class and on-the-job progress. Units are -- (1) History of Furniture, (2) Tools and Equipment, (3) Springing Up, (4) Body Work, (5) Stuffing, (6) Covers, (7) Tufting and Buttoning, (8) Paneling and Trimming, (9) Typical Jobs, (10) Old Finish, (11) New Finish, (12) Special Jobs, and (13) Woodworking. The guide was intended for a course meeting 1 hour per day for 2 years. Answers are available (VT 003 127). This document is available for $1.50 from Trade and Industrial Education, Box 2847, University, Alabama 35486. (EM)

VT 002 056

Upholstery, A Course of Study, Designed for Cooperative Part-Time Students Employed in Upholstery Work.

Karnes, James B.
Missouri Univ., Columbia. Dept. of Industrial Education
Missouri State Dept. of Education, Jefferson City
Pub Date - Oct64
MF AVAILABLE IN VT-ERIC SET 87p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *FURNITURE UPHOLSTERERS, HIGH SCHOOLS, JOB ANALYSIS, COOPERATIVE EDUCATION, *INDIVIDUAL INSTRUCTION,

This guide is for student use in studying related occupational information of furniture upholstery in high school or post-high school cooperative education programs. It was developed by a committee of teacher coordinators and teacher educators through an analysis of the trade and has been field tested and periodically revised. The 17 assignment sheets, designed to facilitate individualized instruction, contain introductory paragraphs to develop interest, explanations of the assignments, references, learning activities, and objective-type study questions. Examples of titles are (1) Frame Construction, (2) Springs and Spring Work, (3) Padding Operations, (4) Outside Covering Materials, and (5) Slip Covers. An information sheet is included on the upholstery trade. The material is to be used by individual students under teacher supervision for 1 year or 180 days. The teacher should be a qualified coordinator or competent trade teacher and students should be in grades 11 or 12 with proper prerequisites and employed in furniture upholstery cooperative classes. Supplementary materials include a list of references, an analysis of the furniture upholstery trade, and a student progress record. Answers to the assignment sheet questions are available in VT 002 055. This document is available for $1.50 from Industrial Education, 103 Industrial Education Building, University of Missouri, Columbia, Missouri 65201. (HC)

GARDEN CENTER EMPLOYEE

VT 001 134

Garden Center Employee. (Teachers Copy).
Fitts, James * Johnson, Johnny

Texas Agr. and Mechanical Univ., College Station
Texas Education Agency, Austin

66

MF AVAILABLE BY SUBSCRIPTION FROM VT ERIC 397p.

*STUDY GUIDES, TESTS, ANSWER KEYS, *VOCATIONAL AGRICULTURE, *GARDEN CENTER EMPLOYEES, *ORNAMENTAL HORTICULTURE, HIGH SCHOOLS, *COOPERATIVE EDUCATION,

This guide is for use in a vocational agriculture cooperative education course for garden center employees. It was designed by subject matter specialists and teachers in consultation with a teacher committee. Units for student use are (1) introduction, which includes importance, scope, and occupational opportunities, (2) plant growing structure, construction, maintenance, and use (3) plant growing media, (4) plant growth and classification, (5) plant propagation, (6) nursery plant production, (7) floral crop production, (8) lawn establishment and care, (9) plant insect, disease, and pest control, (10) equipment operation and maintenance, (11) landscape development and maintenance, and (12) plant and supply merchandising. Each unit includes information sheets and assignment sheets which contain topic, objective, introduction, references, and questions or activities. Topic tests and answer sheets for tests and assignments are included. Teachers should be qualified in vocational agriculture, and students should be juniors and seniors at least 16 years old who desire to become garden center employees. Time required is 180 hours. This document is available for $4.50 from Agricultural Education Teaching Materials Center, Texas Agricultural and Mechanical University, College Station, Texas 77843. (JM)

GENERAL MECHANICS

VT 002 083 ED 013 315

General Mechanics, A Course of Study Designed for Cooperative Part-Time Students Employed in General Mechanics Shops.

Karnes, James B., ed.

Missouri Univ., Columbia. Dept. of Industrial Education

Missouri State Dep of Educ, Jefferson City

Aug63

EDRS Price MF-$0.18 HC-NOT AVAILABLE FROM EDRS 127p.

*STUDY GUIDES, *COURSE OUTLINES, *MECHANICS (PRACTICAL), HIGH SCHOOLS, POSTSECONDARY EDUCATION, *TRADE AND INDUSTRIAL EDUCATION, The purpose of this combination course of study and study guide is to provide material for job skills and procedures, technical information, and personal development. Use in grade 11 or above is recommended for cooperative or preparatory courses. It was originally written by a research assistant, revised by a research assistant in a university setting, with advice from an advisory committee and specialists, after extensive use. Course content is presented as "What the Workers Should Be Able to Do" and "What the Worker Should Know." Covered are such areas as (1) Small Gas Engines, (2) Chain Saw Sharpening, (3) Outboard Motors, (4) Bicycles, and (5) Duplication of Keys. Assignment sheets, tests, and information sheets comprise the study guide. Progress records for the instructor and employer are provided. Related instruction requires 180 clock hours. A qualified coordinator or competent general mechanics instructor is necessary. The students should be at least high school juniors with mechanical aptitude. Listed are 11 references, 17 sources of materials, and two publishers. An answer book (VT 002 082) is available. Reproduction of this 8½ by 11 inch guide is by mimeograph. This document is available for $1.50 from Industrial Education, 103 Industrial Education Building, University of Missouri, Columbia, Missouri 65201. (EM)

GLAZIERS

VT 002 762 ED 013 934
Glazing Workbook.

California State Dep of Educ, Sacramento. Bur of Ind Educ.
Pub Date - 67
EDRS PRICE MF-$1.50 HC-NOT AVAILABLE FROM EDRS 347p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *APPRENTICESHIPS, *GLAZIERS, GLASS,

The technical information in this study guide was planned and written under the direction of the State Educational Committee for the Glazing Trade for use as related classroom instruction in the glazing apprentice training program. The units are (1) The Apprentice Glazier and His Trade, (2) Basic Mathematics, (3) Applied Mathematics, (4) Blueprint Reading and Sketching, (5) Tools and Equipment, (6) Materials, (7) Glass Processing, (8) Installation, (9) Suspended Glazing, and (10) Special Jobs. Topic assignments within each unit have an introduction of background information and an outline of major points in question form, a section of related information, a study assignment from supplementary materials, a study guide of exercises to be completed, and a checkup test of true-false questions for student self-evaluation. A record of topics completed may be kept in the study guide index. The study of this 144-hour course by indentured apprentices on a group or individual basis is to be directed by a qualified journeyman of the trade. The topics contain detail construction drawings and photographic and line-drawing illustrations. A glossary of terms and a list of required and recommended instructional materials such as reference books, catalogs, brochures, and installation manuals are included. Testbooks and final examinations are available to the instructor. This document is available for $3.00 from Bureau of Industrial Education, California State Department of Education, 721 Capitol Mall, Sacramento, California 95814. (HC)

GROUNDS KEEPERS

VT 001 133 ED 016 034
Assistant Groundskeeper, Teachers Copy.

Fitts, James * Johnson, Johnny
Texas Agr and Mech Univ, Coll. Station. Teaching Mat Ctr
Texas Education Agency, Austin
Pub Date - 66
EDRS PRICE MF-$1.25 HC-NOT AVAILABLE FROM EDRS 326p.
*STUDY GUIDES, *VOCATIONAL AGRICULTURE, *COOPERATIVE EDUCATION, *GROUNDS KEEPERS, TESTS, ANSWER KEYS, *ORNAMENTAL HORTICULTURE, GRADE 11, GRADE 12, LANDSCAPING,

The purpose of this document is to provide a study guide for vocational agriculture cooperative education students preparing to become assistant groundskeepers. It was prepared by vocational agriculture teachers in consultation with subject matter specialists. Sections in the guide include (1) introduction to horticulture, (2) plant growing media, (3) plant growth and classification, (4) plant propagation, (5) nursery plant production, (6) floral crop production, (7) lawn establishment and care, (8) plant insect, disease, and pest control, (9) equipment operation and maintenance, and (10) landscape development and maintenance. Each section includes information sheets, assignment sheets, assignment answer sheets, topic tests, and topic test answer sheets. A qualified vocational agriculture teacher may use the material as a 180-hour course of study with junior and senior boys with occupational goals as assistant groundskeepers. Necessary supplementary materials are cited in the document. This document is available for $4.50 from Agricultural Education Teaching Materials Center, Texas Agricultural and Mechanical University, College Station, Texas 77843. (JM)

HARDWARE SALES

VT 001 685
Hardware Sales Training Kit.

Texas Univ., Austin. Instructional Materials Lab.
Pub Date - Aug66
DOCUMENT NOT AVAILABLE FROM EDRS 16 parts

TEXTBOOKS, *STUDY GUIDES, ANSWER KEYS, *REFERENCE MATERIALS, *DISTRIBUTIVE EDUCATION, *MERCHANDISING, *HARDWARE STORES, HIGH SCHOOLS, POST SECONDARY EDUCATION, INDIVIDUAL INSTRUCTION,

The kit consists of four assignment manuals and 16 reference booklets for students and a teacher's answer book for use in training distributive education (DE) students for a career in hardware merchandising. The assignment manuals and answer book were developed by a DE teacher-coordinator with practical hardware experience and an instructional materials specialist at the state level. The reference booklets were developed by the National Retail Hardware Association. Areas covered by the assignment manuals are (1) builders' hardware, hand tools, power tools, electrical supplies, plumbing supplies, and paint and wallpaper, (2) housewares, giftware, laundry supplies, and lawn, garden, and farm supplies, (3) sporting goods, athletic equipment, and toys, and (4) techniques of selling, merchandising, promotion, and advertising and management. The manuals give the title and page of the reference booklet to be used in answering the questions and doing the projects of each assignment. The materials are sufficient for 2 years of individual student instruction. These documents are available in kit form only for $25.00 from Instructional Materials Laboratory, Distributive Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (MM)

VT 002 061
Hardware Retailing, A Course of Study, Designed for Cooperative Part-Time Students Employed in Hardware Retailing.

Karnes, James B.
Missouri Univ., Columbia. Dept. of Industrial Education
Missouri State Dep of Educ, Jefferson City. Ind Educ Sect
Pub Date - Oct65
MF AVAILABLE IN VT-ERIC SET 204p.
*STUDY GUIDES, *DISTRIBUTIVE EDUCATION, *HARDWARE STORES, HIGH SCHOOLS, *RETAILING, INDIVIDUAL INSTRUCTION, *COOPERATIVE EDUCATION,

This study guide is for directed individual student use in acquiring job skills and procedures, related information, and personal-social traits necessary for a career in hardware retailing. It was developed by advisory consultants and research assistants at local and state levels. Major content areas include--(1) salesmanship, (2) management, (3) merchandising, (4) hardware, (5) tools, (6) sporting goods and recreational equipment, (7) paint and paint sundries, (8) electrical fixtures, supplies, housewares, and gifts, (9) housewares, (10) cleaning and laundry supplies, and (11) plumbing, heating, and building materials. A two-column form correlates elements of the job analysis and related information. Each of the 23 assignment sheets, covering 154 units, contains introductory information, assignment, a list of required references, and objective-type questions. Students should be juniors and seniors in high school, and the teacher should be a qualified coordinator. The suggested time allotment is 180 hours. A training plan and progress record are included. A necessary reference book, "Advanced Course in Hardware Retailing (1964 Edition)," is available for $10.00 from National Retail Hardware Association, 964 North Pennsylvania Street, Indianapolis, Indiana. The study guide is available for $1.50 from Industrial Education, 103 Industrial Education Building, University of Missouri, Columbia, Missouri 65201. (MM)

HEATING & AIR CONDITIONING

VT 007 139
Dempster, Chalmer T.; Springle, Donald C.
Basic Comfort Heating Principles.

Rutgers, The State Univ., New Brunswick, N.J. Curriculum Lab.
New Jersey State Dept. of Education, Trenton. Div. of Vocational Education
MF AVAILABLE IN VT-ERIC SET.
Vocational-Technical Curriculum Laboratory, Rutgers University, 10 Seminary Place, New Brunswick, New Jersey 08903.
Pub Date - Sep68 155p.

*STUDY GUIDES; *TEXTBOOKS; *TRADE AND INDUSTRIAL EDUCATION; SHEET METAL WORKERS; *HEATING; *AIR CONDITIONING; ILLUSTRATIONS; GRADE 11; GRADE 12

This text was developed by vocational instructors for use by students in courses treating heating and air conditioning of family dwellings. It presents fundamental principles and provides for practical progress check through review questions. Major units cover: (1) air conditioning, (2) heating, (3) air motion in ducts, (4) load calculation, (5) measurement of heat transmission, and (6) heat loss calculation. Three appendixes contain "How to Calculate Heat Transmission Factors," "How to Determine Infiltration Heat Loss by the Crackage Method," and sample data collection forms. The teacher should meet state requirements and students should qualify for high school vocational courses. (EM)

HOME FURNISHINGS SALESMEN
VT 000 211

Home Furnishings Sales Training Kit.
Texas Univ., Austin. Dept. of Distributive Education

Sep60

DOCUMENT NOT AVAILABLE FROM EDRS 19 parts

*HOME FURNISHINGS, SALESMANSHIP, *DISTRIBUTIVE EDUCATION, *STUDY GUIDES, ANSWER KEYS, SENIOR HIGH SCHOOLS, POSTSECONDARY EDUCATION, *SALES OCCUPATIONS, *REFERENCE MATERIALS, BIBLIOGRAPHIES, TEACHERS GUIDES.

This kit, consisting of training manuals, an instructor's handbook, and reference materials, is designed to teach prospective and present home furnishing sales people how to sell effectively. Although planned for use with distributive education students in high schools and junior colleges, it is also useful for experienced sales people. Some of the materials were developed by writers after study and research, but much was compiled from references furnished by manufacturers and their suppliers, retailers, trade associations, and publishers. There are seven manuals -- The Furniture Store of Today, Designs for Sitting, Tables and Storage Units, Sleep Equipment, Lamps and Accessories, Decor, and Selling Home Furnishings. The instructor's handbook includes answers to all assignments in the manuals. The reference materials consist of ten publications from private industry -- Seng Furniture Facts, The Seng Decorule, How to Decorate and Light Your Home, Spinning the Color Wheel, How to Color Plan Your Home, How to Work with Airfoam Super Cushioning, The Kroehler Report, Fine Hardwoods Selectorama, Lampshade Highlights, 10 copies of the Home Furnishings Template drawn to scale, and a Bibliography for Home Furnishings. This kit is available for $19.95 from Instructional Materials Laboratory, Distributive Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (SL)

HOUSEHOLD APPLIANCE SERVICEMEN
VT 000 247

Supervised Study Guide, Appliance Servicing.
Self, Oscar A.

Texas Univ., Austin. Dept. of Industrial Education

Texas State Dept. of Educ., Austin. Industrial Educ. Div.

Nov65

DOCUMENT NOT AVAILABLE FROM EDRS 168p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *HOUSEHOLD APPLIANCE SERVICEMEN, *HOUSEHOLD APPLIANCES, ELECTRICITY, HIGH SCHOOLS, *COOPERATIVE EDUCATION, The related technical material in this guide is for use, on a supervised study basis, by junior or senior students in a cooperative training program in an area vocational or technical high school. It was developed by an instructor in a special workshop under the direction of a specialist and an advisory committee. Information and assignment sheets cover -- (1) Basic Electricity, (2) Tools, Testing Instruments, and Shop Technique, (3) Elementary Troubleshooting, (4) Heater-Type Minor Appliances, (5) Fractional Horsepower Motors, (6) Motor-Operated Minor Appliances, (7) House Wiring, (8) Heater-Type Appliances, (9) Motor-Operated Major Appliances, (10) Gas-Fired Appliances, and (11) Air Conditioning and Refrigeration. Each assignment presents subject, aim, introductory information, references, and questions. A progress form coordinates job and class experiences. The content was designed for 360 hours of directed study or a 2-year part-time program. A bibliography includes required and supplemental references. Unit tests are available in VT 000 249, and assignment and test answers in VT 000 248. Both, with the guide, are available for $6.25 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (EM)

LAW ENFORCEMENT

VT 000 689   ED 016 025

Law Enforcement Officer Training, Basic Course, Unit I, A Unit of the Ohio Law Enforcement Officers' Training Program, Learner's Manual.

Ohio State Dept of Ed, Columbus. Trade and Ind Ed Service
Pub Date - Jul66
EDRS PRICE MF-$0.75 HC-$6.52 163p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *POLICE, *LAW ENFORCEMENT, ADULT VOCATIONAL EDUCATION,

Students may use this manual in a training program for inservice law enforcement officers and recruits. It was developed by a statewide committee of state law enforcement training consultants, specialists, and an advisory committee and was tested by a subject-matter specialist in a pilot-class study. The training program is designed to provide law enforcement officers with a better understanding of the many problems involved in providing good law enforcement services. Some of the 13 instructional units, training procedures, are (1) patrolling on foot during day or night, (2) handling misdemeanors witnessed by officer, (3) handling traffic accidents, (4) testifying in court, and (5) shooting a revolver. Each training procedure contains an introductory statement, a list of necessary equipment, general safety practices, and a detailed outline of procedural steps. Students are to use the material under the supervision of a selected and trained police officer. The document is illustrated with line drawings and photographs. Twenty-seven appendixes contain items such as the Bill of Rights, Canons of Police Ethics, and examples of report forms. An instructor's manual (VT 000 690), a learner's manual (VT 000 692), and an instructor's manual (VT 000 693) are available. This document is available for $2.25 from Ohio Trade and Industrial Education Service, Instructional Materials Laboratory, The Ohio State University, 1885 Neil Avenue, Columbus, Ohio 43210. (HC)

VT 000 692 ED 016 027
Law Enforcement Officer Training, Basic Course, Unit II, A Unit of the Ohio Law Enforcement Officers' Training Program, Learner's Manual.
Ohio State Dept of Ed, Columbus. Trade and Ind Ed Service
Pub Date - Jul66
EDRS PRICE MF-$0.50 HC-$3.84 96p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *POLICE, *LAW ENFORCEMENT, ADULT VOCATIONAL EDUCATION,

Students may use this manual in a law enforcement training program for inservice law enforcement officers and recruits. It was developed by a statewide committee of law enforcement training consultants, specialists, and an advisory committee and was tested by a subject matter specialist in a pilot-class study. The program is designed to provide law enforcement officers with a better understanding of the many problems involved in providing good law enforcement services. Some of the 12 instructional units, training procedures, are (1) dealing with civil complaints, (2) handling fire scenes, traffic congestion, suspicious persons, and dead-on-arrival, and (3) administering emergency care-first aid. Each training procedure contains an introductory statement, a list of necessary equipment, general safety practices, and a detailed outline of procedural steps. Students are to use the material under the supervision of a selected and trained police officer. The document is illustrated with line drawings and photographs. Nineteen appendixes contain formations to disperse gatherings, defense techniques, commercial restraint devices, examples of report forms, and sources of prepared crime-prevention materials. An instructor's manual (VT 000 693), a unit-one learner's manual (VT 000 689), and an instructor's manual (VT 000 690) are available. This document is available for $2.25 from Ohio Trade and Industrial Education Service, Instructional Materials Laboratory, The Ohio State University, 1885 Neil Avenue, Columbus, Ohio 43210. (HC)

LP-GAS SERVICE

VT 000 296
LP-Gas Service Training Course. Book 2, Information Manual, Basic Information, Bulk Plant Operations, Transportation.

Cockrum, Jim
Texas Univ., Austin. Dept. of Industrial Education
Liquefied Petroleum Gas Assn., Chicago, Ill.
Pub Date - Nov61
DOCUMENT NOT AVAILABLE FROM EDRS 210p.

*TEXTBOOKS, *TRADE AND INDUSTRIAL EDUCATION, *SERVICE OCCUPATIONS, SALES OCCUPATIONS, SUPERVISORS, *LIQUEFIED PETROLEUM GAS, ADULT VOCATIONAL EDUCATION,

Students may use this textbook in preparatory or upgrading courses for liquefied petroleum (LP) gas company employees, particularly servicemen. It was developed by an instructional materials specialist, technical advisors, and a national advisory committee. Chapter titles are (1) The LP-Gas Distribution Chain, (2) Basic LP-Gas Facts for Delivery Men and Bulk Plant Men, (3) Containers and Fittings for Transportation and Storage, (4) Methods of Transferring LP-Gas, (5) Care and Operation of Pumps and

Compressors, (6) Maintenance Points for Strainers, Meters, and Hoses, (7) Measuring LP-Gas Liquid, (8) A Bulk Plant Tour, (9) Bulk Plant Records, (10) Safety Steps at the Bulk Plant, (11) Filling Cylinders at the Bulk Plant, (12) Cylinder Care, (13) Parts of an LP-Gas Railroad Tank Car, (14) Unloading Railroad Tank Cars, (15) Stopping Leaks in Tank Car Domes, (16) Transport Trucks, (17) The Delivery Man, (18) The Bulk Delivery Truck, and (19) The Cylinder Delivery Truck. Two to 3 hours of study or combined study-class time are required for each lesson. Students should have an eighth-grade education. The document is illustrated with line drawings and photographs. See also companion documents VT 000 294, VT 000 295, and VT 000 293. This document is available for $2.00 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (EM)

VT 000 297
LP-Gas Service Training Course. Book 3, Information Manual.

Cockrum, Jim
Texas Univ., Austin. Dept. of Industrial Education
Liquefied Petroleum Gas Assn., Chicago, Ill.
Pub Date - May65
DOCUMENT NOT AVAILABLE FROM EDRS 340p.

*TEXTBOOKS, *TRADE AND INDUSTRIAL EDUCATION, *SERVICE OCCUPATIONS, SALES OCCUPATIONS, SUPERVISORS, *LIQUEFIED PETROLEUM GAS, ADULT VOCATIONAL EDUCATION,

Students may use this textbook in preparatory or upgrading courses for liquefied petroleum (LP) gas company employees, particularly servicemen. It was developed by an instructional materials specialist, technical advisors, and a national advisory committee. Some of the 26 chapter titles are (1) Science for the LP-Gas Man, (2) LP-Gas Cylinder Storage Systems, (3) Planning Storage Systems, (4) Installing Storage Systems and House Piping, (5) The Gas Water Heater, Silent Servant, (6) Heating Appliances and How They Work, (7) Installing Heating Equipment, (8) Servicing Heating Appliances, (9) Operation of an LP-Gas Clothes Dryer, and (10) Installing and Servicing Incinerators. Two to 3 hours of study or combined study-class time are required for each lesson. Students should have an eighth-grade education. The document is illustrated with line drawings and photographs. See also companion documents VT 000 298, VT 000 299, VT 000 300. This document is available for $3.00 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (EM)

VT 000 304
LP-Gas Service Training Course. Book 4, Information Manual, Agricultural, Commercial and Industrial Applications, LP-Gas Carburetion Systems.

Cockrum, Jim
Texas Univ., Austin. Dept. of Industrial Education
Liquefied Petroleum Gas Assn., Chicago, Ill.
Pub Date - May60
DOCUMENT NOT AVAILABLE FROM EDRS 124p.

*TEXTBOOKS, *TRADE AND INDUSTRIAL EDUCATION, *SERVICE OCCUPATIONS, SALES OCCUPATIONS, SUPERVISORS, *LIQUEFIED PETROLEUM GAS, ADULT VOCATIONAL EDUCATION, Students may use this textbook in preparatory or upgrading courses for liquefied petroleum (LP) gas company employees, particularly servicemen. It was developed by an instructional materials specialist, technical advisors, and a national advisory committee. Chapter titles are (1) Load Balancing by Special Applications, (2) Providing Heat for Animals and Plants and for Profit, (3) Agricultural Flaming Using LP-Gas, (4) Dehydrating Farm Products, (5) Portable LP-Gas Industrial Equipment, (6) Nonportable LP-Gas Industrial Equipment, (7) Commercial Cooking and Water-Heating Equipment, (8) LP-Gas Carburetion Equipment, (9) Installing and Servicing Carburetion Systems, and (10) The Gas Light Era in Back. Two to 3 hours of study or combined study-class time are required for each lesson. Students should have an eighth grade education. The document is illustrated with line drawings and photographs. See also companion documents VT 000 301, VT 000 302, and VT 000 303. This document is available for $1.75 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (EM)

VT 000 291
LP-Gas Service Training Course. Book 1, Information Manual.

Cockrum, Jim
Texas Univ., Austin. Dept of Industrial Education
National LP-Gas Assn., Chicago, Ill.
Pub Date - May66
DOCUMENT NOT AVAILABLE FROM EDRS 101p.
*TEXTBOOKS, *TRADE AND INDUSTRIAL EDUCATION, SALES OCCUPATIONS, *SERVICE OCCUPATIONS, SUPERVISORS, *LIQUEFIED PETROLEUM GAS, ADULT VOCATIONAL EDUCATION,

Students may use this textbook in preparatory or upgrading courses for liquefied petroleum (LP) gas company employees, particularly servicemen. It was developed by an instructional materials specialist, technical advisors, and a national advisory committee. Chapter titles are (1) A Fuel with a Future, (2) Meet the Hydrocarbons, (3) Meet the LP-Gases, (4) The Behavior of LP-Gases, (5) How LP-Gas is Distributed, (6) The "Why" and "How" of Standards, (7) Regulations for LP-Gas, (8) A Table of Standards, (9) Fundamentals of Customer Relations, (10) Customer Relations for the Service Employee, (11) Customer Relations for Office Employees, and (12) Instructing the Customer. Two to 3 hours of study or combined study-class time are required for each lesson. Students should have an eighth-grade education. The document is illustrated with line drawings and photographs. See also companion documents VT 000 289, VT 000 290, and VT 000 292. This document is available for $1.50 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (EM)

VT 000 290
LP-Gas Service Training Course. Book 1, Assignment Book, The Product, Standards and Regulations, Customer Relations.

Cockrum, Jim
Texas Univ., Austin. Dept of Industrial Education
National LP-Gas Assn., Chicago, Ill.
Pub Date - Apr66
DOCUMENT NOT AVAILABLE FROM EDRS 69p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, SALES OCCUPATIONS, *SERVICE OCCUPATIONS, SUPERVISORS, *LIQUEFIED PETROLEUM GAS, ADULT VOCATIONAL EDUCATION, Students may use this guide in preparatory or upgrading courses for employees, particularly servicemen, in jobs with liquefied petroleum (LP) gas companies in either company or school programs. It was developed by an instructional materials specialist, technical advisors, and a national advisory committee. Assignment sheet titles are (1) A Fuel with a Future, (2) Meet the Hydro-Carbons, (3) Meet the LP-Gases, (4) The Behavior of LP-Gases, (5) How LP-Gas is Distributed, (6) The Why and How of Standards, (7) Regulations of LP-Gas, (8) A Table of Standards, (9) Fundamentals of Customer Relations, (10) Customer Relations for the Service Employee, (11) Customer Relations for Office Employees, and (12) Instructing the Customer. Each sheet gives aim, introductory information, references, and thought questions. Each lesson requires 2 or 3 hours of the student's time. The teacher should be a professional teacher or an LP-gas company employee. Students should have an eighth-grade education. Answers to the thought questions are included. See companion documents VT 000 289, VT 000 291, and VT 000 292. This document is available for $1.50 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (EM)

VT 000 293
LP-Gas Service Training Course. Book 2, Assignment Book.

Cockrum, Jim
Texas Univ., Austin. Dept of Industrial Education
Liquefied Petroleum Gas Assn., Chicago, Ill.
Pub Date - May65
DOCUMENT NOT AVAILABLE FROM EDRS 114p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *SERVICE OCCUPATIONS, SUPERVISORS, SALES OCCUPATIONS, *LIQUEFIED PETROLEUM GAS, ADULT VOCATIONAL EDUCATION,

Students may use this study guide in preparatory or updating courses for employees, particularly servicemen, in jobs with liquefied petroleum (LP) gas companies in either company or school programs. It was developed by an instructional materials specialist, technical advisors, and a national advisory committee. Titles of assignment sheets are (1) The LP-Gas Distribution Chain, (2) Basic LP-Gas Facts for Delivery Men and Bulk Plant Men, (3) Containers and Fittings for Transportation and Storage, (4) Methods of Transferring LP-Gas, (5) Care and Operation of Pumps and Compressors, (6) Maintenance Points for Strainers, Meters, and Hoses, (7) Measuring LP-Gas Liquid, (8) A Bulk Plant Tour, (9) Bulk Plant Records, (10) Safety Steps at the Bulk Plant, (11) Filling Cylinders at the Bulk Plant, (12) Cylinder Care, (13) Parts of an LP-Gas Railroad Tank Car, (14) Unloading Railroad Tank Cars, (15) Stopping Leaks in Tank Car Domes, (16) Transport Trucks, (17) The Delivery Man, (18) Bulk Delivery Truck, and (19) The Cylinder Delivery Truck. Each assignment sheet gives aim, introductory information, references, thought and thought and followup questions. Each lesson requires 2 or 3 hours of student time. The teacher should be a professional teacher or an LP-gas company employee, and students should have an eighth-grade education. Answers to the thought questions are included. See companion documents VT 000 294, VT 000 295, and VT 000 296. This document is available for $2.00 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas, 78712. (EM)

VT 000 300
LP-Gas Service Training Course. Book 3, Assignment Book.

Cockrum, Jim
Texas Univ., Austin. Dept. of Industrial Education
Liquefied Petroleum Gas Assn., Chicago, Ill.
Pub Date - Dec59
DOCUMENT NOT AVAILABLE FROM EDRS 136p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *SERVICE OCCUPATIONS, SUPERVISORS, SALES OCCUPATIONS, *LIQUEFIED PETROLEUM GAS, ADULT VOCATIONAL EDUCATION,

Students may use these assignments in preparatory or upgrading courses for employees in jobs with liquefied petroleum (LP) gas companies, particularly servicemen, in company or school programs. They were developed by an instructional materials specialist, technical advisors, and a national advisory committee. Some of the 26 assignment sheet titles are (1) Science for the LP-Gas Man, (2) LP-Gas Cylinder Storage Systems, (3) Planning Storage Systems, (4) Installing Storage Systems and House Piping, (5) The Gas Water Heater, A Silent Servant, (6) Heating Appliances and How They Work, (7) Installing Heating Equipment, (8) Servicing Heating Appliances, (9) Operation of an LP-Gas Clothes Dryer, and (10) Installing and Servicing Incinerators. Assignment sheets give aim, introductory information, references, and thought questions. Each lesson requires 2 or 3 hours of the student's time. The teacher should be a professional teacher or an LP-gas company employee and students should have an eighth-grade education. Answers to the thought questions are included. See companion documents VT 000 297, VT 000 298, and VT 000 299. This document is available for $2.00 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (EM)

VT 000 303
LP-Gas Service Training Course. Book 4, Assignment Book, Agricultural, Commercial and Industrial Applications, LP-Gas Carburetion Systems.

Cockrum, Jim
Texas Univ., Austin. Dept of Industrial Education
Liquefied Petroleum Gas Association, Chicago, Ill.
Pub Date - May60
DOCUMENT NOT AVAILABLE FROM EDRS 97p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, SALES OCCUPATIONS, *SERVICE OCCUPATIONS, SUPERVISORS, *LIQUEFIED PETROLEUM GAS, ADULT VOCATIONAL EDUCATION,

Students may use these assignments in preparatory or upgrading courses for employees, particularly servicemen, in jobs with liquefied petroleum (LP) gas companies in company or school programs. They were developed by an instructional materials specialist, technical advisors, and a national advisory committee. Assignment sheet titles are (1) Load Balancing by Special Applications, (2) Providing Heat for Animals and Plants and for Profit, (3) Agricultural Flaming Using LP-Gas, (4) Dehydrating Farm Products, (5) Portable LP-Gas Industrial Equipment, (6) Non-Portable LP-Gas Industrial Equipment, (7) Commercial Cooking and

Water-Heating Equipment, (8) LP-Gas Carburetion Equipment, (9) Installing and Servicing Carburetion Systems, and (10) The Gas Light Era is Back. Assignment sheets give aim, introductory information, references, and thought and followup questions. Each lesson requires 2 or 3 hours of the student's time. The teacher should be a professional teacher or an LP-gas company employee, and students should have an eighth-grade education. Answers to the thought questions are included. See companion documents VT 000 301, VT 000 302, and VT 000 304. This document is available for $2.00 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (EM)

MACHINE SHOP

VT 000 253
Supervised Study Guide, Machine Shop.

Enderby, David R.
Texas Univ., Austin. Dept. of Industrial Education
Texas Education Agency, Austin. Industrial Educ. Div.
Pub Date - Feb66
DOCUMENT NOT AVAILABLE FROM EDRS 167p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *METAL MACHINING OCCUPATIONS, GRADE 11, GRADE 12, STUDENT RECORDS, INDIVIDUAL INSTRUCTION, *COOPERATIVE EDUCATION,

This study guide is for individual student use in cooperative training for juniors and seniors in machine shop programs in area vocational or technical high schools. This second edition was developed by a machine shop instructor and an advisory committee at the state level. The content objective is to develop related technical knowledge necessary for entry into the trade as a machinist learner. The units are (1) Safety, (2) Measuring Tools, (3) Benchwork, (4) Cutting Fluids, (5) Metal Cutting, (6) Grinding Machines, (7) Drill Press, (8) Lathe, (9) Shaper, (10) Milling Machine, and (11) Numerical Control. The assignment sheets within each unit give the aim, introductory information, references, and questions. The material is to be used by individual students under teacher supervision for 2 years or 360 directed study hours. The teacher should have normal education for high school coordinators. Students should be employed in cooperative programs. Supplementary materials include a progress record for recording completed job experiences and related study topics and a bibliography of State-adopted textbooks and references. An answer book (VT 000 254) is available for the study guide. This document is available with "Unit Tests for Supervised Study Guide in Machine Shop" (VT 000 255) for $4.70 from The Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (HC)

VT 005 181
Machine Shop. Part 1, Workbook.

Biebesheimer, Howard * and others
California State Dep of Educ, Sacramento. Bur of Ind Educ
Pub Date - 64
MF AVAILABLE IN VT-ERIC SET. 166p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *MACHINISTS, *APPRENTICESHIPS, This study guide is for student use in the related technical phase of the first year of machinist apprentice training programs. It was developed by a statewide educational advisory committee of labor and management representatives. The units are (1) The Apprentice Machinist and His Trade, (2) Mathematics as Applied to the Machinist Trade, (3) Blueprint Reading, Sketching, and Drawing, (4) Benchwork, and (5) Drill Press Work. Topics within each unit provide references, an introduction, related information, and checkup questions. Examinations from the course testbook are to be given after each topic and each unit are completed. The material is to be used by individual students under teacher supervision for 144 hours or 1 year. The teacher must be a qualified journeyman from the trade, and the students must be indentured apprentices. The document is illustrated with line drawings and photographs. Lists of recommended books for each apprentice, classroom library books, slidefilms, and motion picture films are included. "Machine Shop Part 2, Workbook" is available as VT 005 182. This document is available for $2.00 from Bureau of Industrial Education, California State Department of Education, 721 Capitol Mall, Sacramento, California 95814. (HC)

VT 005 182
Machine Shop, Part 2, Workbook.

Erickson, W.A.
California State Dep of Educ, Sacramento. Bur of Ind Educ
Pub Date - 67
MF AVAILABLE IN VT-ERIC SET. 130p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *MACHINISTS, *APPRENTICESHIPS,

This second-year study guide is for student use in the related technical phase of machinist apprentice training programs. It was developed by a statewide educational advisory committee of labor and management representatives. The units are (1) Shop Mathematics, (2) Blueprint Reading, Sketching, and Drawing, (3) Shaper Work and Vertical Mill Applications, (4) Lathe Work, and (5) Materials and Machining Practices. Topics within each unit provide the assignment, study questions, and, in some cases, problems. Examinations from the course testbook are to be given after each topic and each unit are completed. The material is to be used by individual students under teacher supervision for 144 hours or 1 year. The teacher must be a qualified journeyman from the trade, and the students must be indentured apprentices. The document is illustrated with line drawings and photographs. Lists of required books for each apprentice, recommended classroom library books, slidefilms, and motion picture films are included. See also VT 005 181. This document is available for $2.25 from Bureau of Industrial Education, California State Department of Education, 721 Capitol Mall, Sacramento, California 95814. (HC)

MACHINE TRADES

VT 000 698
Machine Trades II, Learner's Manual.

Ohio State Dep of Educ, Columbus. Trade and Ind Educ Serv
MTLM-2
Pub Date - 65
MF AVAILABLE IN VT-ERIC SET 337p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *METAL MACHINING OCCUPATIONS, HIGH SCHOOLS, APPRENTICESHIPS, POST SECONDARY EDUCATION, TESTS,

The assignment sheets in this study guide were developed to assist apprentices, vocational high school and post-high school students in preparatory programs for the machine trades with the study of related technical information and to assist the teacher in presenting the material using group or individual instruction methods. The material was developed by a state-wide committee of teacher educators, state and local supervisors, instructors, and subject matter specialists. The units of instruction are -- (1) Shaper Work, (2) Milling Machine Work, (3) Planer Work, (4) Grinder Work, (5) Metallurgy, (6) Heat Treating, and (7) Gears and Gearing. Each unit contains assignment sheets with objectives, textbook references, and study questions and objective-type review test. The material is designed for use by teachers who are skilled tradesmen. A supplemental manual, "Basic Instructional Units for the Machines Trades" (VT 000 719), provides outlines of manipulative-preparatory steps and basic and supplementary manipulative operations correlated to this study guide. Answers to the study guide and review questions are available in "Machine Trades II, Answer Book" (VT 000 696). This document (study guide) is available for $2.35 from Ohio Trade and Industrial Education Service, Instructional Materials Laboratory, The Ohio State University, 1885 Neil Avenue, Columbus, Ohio 43210. (HC)

MAIDS, HOSPITAL

VT 05 016
Being a Housekeeping Aide. Student Manual.

Hospital Research and Educational Trust, Chicago, Ill.
American Hospital Association, Chicago, Ill.
Department of Labor, Washington, D.C.
DOCUMENT NOT AVAILABLE FROM EDRS.
Robert J. Brady Company, 130 Que Street, N.E., Washington, D.C. 20002 ($5.00).
Pub Date - 67 288p.

*TEXTBOOKS; *STUDY GUIDES; *OCCUPATIONAL HOME ECONOMICS; *MAIDS; HOSPITAL PERSONNEL; *HOSPITALS; VOCATIONAL HIGH SCHOOLS; COMMUNITY COLLEGES; ON THE JOB TRAINING

Instructional materials for student use in training or retraining for the occupation of housekeeping aide at the vocational high school or community college level were developed by professional consultants. They were tested in a nationwide on-the-job training program and revised according to instructor evaluation and consultants' suggestions. A minimum of 60 hours plus on-the-job training is required for the program. Format of the text features bold print in color, multi-color illustrations of procedures and concepts plus note space. Lesson topics are: Orientation, Principles of Sanitation and Disinfection, Making Movement Count, Basic Cleaning Procedures, Maintaining Floors, Cleaning Other Surfaces, Stain Removal, Controlling Hospital Pests, Cleaning Patient Units, Cleaning Isolation Units, Special Cleaning, Area Cleaning, Care and Upkeep of Housekeeping Equipment, Preventing Acccidents, and Specialized Housekeeping Tasks. A coordinated instructor's guide is available as VT 005 017. (FP)

MEAT CUTTERS

VT 003 108

Meat Cutting, A Study Guide and Progression Record for Meat Cutting Students in a Cooperative Training Program. (File, no. 322).
Alabama Univ., University. Dept. of Trade and Ind. Educ.

Sep64

DOCUMENT NOT AVAILABLE FROM EDRS 90p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *MEAT CUTTERS, FOOD, MERCHANDISING, GRADE 11, GRADE 12, STUDENT RECORDS, *COOPERATIVE EDUCATION, Question-type job sheets in this guide direct related study for students in 2-year cooperative training programs for meat cutting and merchandising. The guide was developed by trade and industrial coordinators, subject matter specialists, and teacher educators and was tested by use in high school programs. Instructional areas are -- (1) Cutting Pork, (2) Cutting Lamb and Mutton, (3) Cutting Beef, (4) Cutting Veal, (5) Smoked Meats, (6) Sausage, (7) Poultry, and (8) Merchandising. The job sheets are keyed to selected references and provide space for recording completed laboratory performance and related readings. Trade analysis progress record forms are provided for teacher and student use in recording job performance and reference readings. The material was developed for students in grades 10, 11, and 12 in area vocational or comprehensive high schools. This mimeographed document includes a bibliography of correlated references and supplementary bulletins. This document is available for $1.25 from Trade and Industrial Education, Box 2847, University, Alabama 35486. An answer book (VT 003 107) is available from the same source for 75 cents. (HC)

VT 000 905
Supervised Study Guide in Meatcutting.

Texas Univ., Austin. Dept. of Industrial Education
Texas Education Agency, Austin. Industrial Educ Div.
Pub Date - Sep66
DOCUMENT NOT AVAILABLE FROM EDRS 105p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *MEAT CUTTERS, *MEAT, HIGH SCHOOLS, INDIVIDUAL INSTRUCTION, *COOPERATIVE EDUCATION,

This guide is for student use in studying the related technical information of the meatcutting trade in high school cooperative training programs. It was developed by an instructional materials specialist and trade advisory committee at the state level. Units of instruction are (1) Routine Shop Work, (2) Meat Grinding and Slicing, (3) Wholesale Cuts, (4) Retail Cuts, (5) Poultry and Fish, (6) Packaging, and (7) Handling and Displaying Meats. Assignment sheets in each unit give the lesson subject, aim, introductory information, references, and questions. Information sheets are used to present material which is not available or not suitably presented in the references. Unit tests are to be assigned by the teacher when the student has completed a group of assignments. The material is to be used by individual students under teacher supervision for 2 years or 360 hours of directed study. The teacher should have normal education for high school coordinators, and the students should be in grade 11 or grade 12 and employed in a cooperative program with an occupational goal of becoming a learning meatcutter. Supplementary materials include a 2-year job and class progress record and a bibliography of required references and other material. Unit tests are available in VT 000 904, and answers to test and study guide questions are available in VT 000 903. This document is available with the unit tests (VT 000 904) for $5.00 from the Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (HC)

VT 002 085
Meat Cutting, A Course of Study Designed for Cooperative Part-Time Students Employed in Meat Cutting.

Karnes, James B.
Missouri Univ., Columbia. Dept. of Industrial Education
Missouri State Dep of Educ, Jefferson City. Ind Educ Sect
Pub Date - May65
MF AVAILABLE IN VT-ERIC SET 136p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *MEAT CUTTERS, HIGH SCHOOLS, POST SECONDARY EDUCATION, JOB ANALYSIS, *COOPERATIVE EDUCATION, INDIVIDUAL INSTRUCTION, *MEAT,

Related occupational information for meat cutting students in high school or post-high school cooperative education programs is presented. It was developed by a committee of teacher coordinators and teacher educators through an analysis of the trade and has been field tested and periodically revised. The 16 assignment sheets, designed for individual instruction, contain informative paragraphs, explanations of the importance of the assignments, references, learning activities, and objective-type questions. Examples of assignment sheet titles are (1) Sanitation in the Meat Department, (2) Preparing Retail Beef Cuts, (3) Preparing Fish and Shellfish, (4) Refrigeration, Curing, and Storage of Meat, and (5) Advertising, Displaying, and Selling Meat. Information sheets are included on retail meat cutters, fresh and frozen fish, and selling meat products. The material is to be used by individual students under the supervision of a qualified coordinator or competent trade teacher for one year or 180 days. The student should be in grade 11 or grade 12, have proper prerequisites, and be employed in meat cutting in a cooperative education program. Supplementary materials include a list of references, an analysis of the retail meat cutting trade, and a student progress record. Answers to assignment sheet questions are available in VT 002 084. This document is available for $1.50 from Industrial Education, 103 Industrial Education Building, University of Missouri, Columbia, Missouri 65201. (HC)

VT 005 141
Meatcutting. Part I, Workbook.

California State Dep of Educ, Sacramento. Bur of Ind Educ
Pub Date - 63
MF AVAILABLE IN VT-ERIC SET. 151p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *MEAT CUTTERS, *MEAT, *APPPENTICESHIPS,

This study guide was developed by an instructional materials laboratory with assistance from local instructors and an advisory committee for use in the related instruction portion of the apprentice meatcutter training program. Major units are (1) The Apprentice Meatcutter, (2) Mathematics, (3) Meatcutting Tools and Equipment, (4) Meat from Farm to Table, (5) Classes and Inspection of Meat, and (6) Meat Salesmanship. Each of the 33 topics in the units provides related information or a text assignment and study questions. This material is for use by indentured apprentices in 144 hours of instruction under a qualified journeyman. Illustrations are photographs and line drawings. A glossary, a bibiliography of three textbooks and nine references, and answers to the mathematics unit questions are included. (See also VT 005 142). This document is available for $2.25 from Bureau of Industrial Education, California State Department of Education, 721 Capitol Mall, Sacramento, California 95814. (EM)

VT 005 142
Meatcutting. Part 2, Workbook.

California State Dep of Educ, Sacramento. Bur of Ind Educ
Pub Date - 64
MF AVAILABLE IN VT-ERIC SET. 129p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *MEAT CUTTERS, *MEAT, *APPRENTICESHIPS,

This study guide was planned by a state advisory committee for use in the related instruction portion of the apprentice meatcutter training program. Major units are (1) Breaking and Cutting Meat, (2) Meat Packaging and Handling, (3) Market Operation, and (4) Workmen's Legal Rights and Benefits. Each of the 23 topics in these units gives related information or a text assignment and study questions. The material is for use by indentured apprentices in 144 hours of instruction under a qualified journeyman. Illustrations are photographs and line drawings. A bibliography lists three textbooks and four references. (See also VT 005 141). This document is available for $2.25 from Bureau of Industrial Education, California State Department of Education, 721 Capitol Mall, Sacramento, California 95814. (EM)

MEDICAL ASSISTANT

VT 002 038
Medical Assistant, A Course of Study Designed for Cooperative Part-Time Students Employed as Medical Assistants.

Karnes, James B., ed.
Missouri Univ., Columbia. Dept. of Industrial Education
Missouri State Dep of Educ, Jefferson City. Ind Educ Sect
Pub Date - Jul64
MF AVAILABLE IN VT-ERIC SET 95p.

*STUDY GUIDES, *HEALTH OCCUPATIONS EDUCATION, *MEDICAL SECRETARIES, HIGH SCHOOLS, POST SECONDARY EDUCATION, *COOPERATIVE EDUCATION,

Seventeen assignment sheets covering 180 hours of related occupational information make up this study guide for use on an individual basis in a part-time cooperative occupational education program. The material was developed in consultation with a state committee by teacher educators and research assistants and revised after several years of use in the field. Each assignment sheet is correlated with job training activities and provides a description of the unit, assignment, references, and objective-type questions. Assignments are -- (1) Introduction, (2) Personal Qualifications, (3) Medical Ethics and Legal Affairs, (4) Appointments and Telephone Techniques, (5) Reception of Patients and Office Arrangements, (6) Working with a Specialist, (7) Fees, Bills, and Accounts, (8) Financial Records, (9) Patient Medical Records, (10) Filing Records, (11) Insurance, (12) Assisting the Doctor with Physical Examinations, (13) Sterilization and Care of Instruments, (14) Ordering and Care of Supplies, (15) Medical Office Correspondence, (16) Hospital Medical Secretary, and (17) Preparing Medical Manuscripts. Students should be high school seniors and have completed a basic health occupations course. Training Plan and Progress Record forms for use by student, employer, and teacher are included. An instructor's answer key (VT 002 037), 50 cents each, and the study guide, $1.50 each, are available from Industrial Education, 103 Industrial Education Building, University of Missouri, Columbia, Missouri 65201. (PS)

MEDICAL LABORATORY ASSISTANT

VT 000 262

Supervised Study Guide in Medical Laboratory Techniques.
Lovelace, Bill E.

Texas Univ., Austin. Dept. of Industrial Education
Texas Educ. Agency, Austin. Industrial Educ. Division

Dec63

DOCUMENT NOT AVAILABLE FROM EDRS 149p.

*STUDY GUIDES, *HEALTH OCCUPATIONS EDUCATION, *MEDICAL LABORATORY ASSISTANTS, HIGH SCHOOLS,

The related technical material in this guide is for use by grade 11 or grade 12 students in health occupations or industrial cooperative training classes. It was prepared for use in a 2-year, 360-hour program for the medical laboratory technician assistant. Materials were developed by a coordinator and reviewing committee at the state level. Job progress record sheets, supplementary information sheets, and assignment sheets are provided for the units -- (1) General Laboratory Work, (2) Urinalysis, (3) Hematology, (4) Blood Bank, (5) Blood Chemistry, (6) Serology, (7) Feces, (8) Gastric and Duodenal Contents, (9) Sputum, (10) Special Procedures, and (11) Histology. A bibliography of required references and films is included. A test booklet (VT 000 264) and the study guide are available for $3.75 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. An answer booklet (VT 000 263) is also available for 95 cents. (PS)

MEDICAL RECORD TECHNOLOGY

VT 002 079 ED 017 657
Medical Record Technology, A Course of Study Designed for Cooperative Part-Time Students Employed in Medical Record Libraries.

Karnes, James B.
Missouri Univ., Columbia. Dept. of Industrial Education
Missouri State Dep of Educ, Jefferson City. Ind Educ Sect
Pub Date - Aug64
EDRS PRICE MF-$0.75 HC NOT AVAILABLE FROM EDRS. 136p.

*STUDY GUIDES, *HEALTH OCCUPATIONS EDUCATION, GRADE 11, POST SECONDARY EDUCATION, ASSIGNMENTS, *COOPERATIVE EDUCATION, STUDENT RECORDS, *MEDICAL RECORD TECHNICIANS,

Designed for use by eleventh grade cooperative part-time students employed in medical record libraries, this guide may also be used in area vocational or post-high school settings. It was developed by a consultant committee, teacher educators, and research assistants at the state level and revised after use in the field. The content objectives are for student mastery of job skills and procedures, comprehension of information basic to the occupation, and development of essential personal-social traits. Assignment sheets provide basic information, related readings, exercises related to the work situation, and objective-type tests for the areas (1) the medical record librarian and technician, (2) values and uses of the medical record, (3) basic and special medical records, (4) responsibility in record preparation, (5) medical terminology, (6) filming and filing procedures, (7) disease and operation nomenclature, (8) indexing procedures, (9) the "International Classification of Diseases" and data processing procedures, (10) statistical data, (11) legal aspects, (12) interdepartmental relations, and (13) intradepartmental organization. An analysis of medical record technology and progress records to be completed by the employer, teacher, and student are included. The material should be used with related instruction for individual students by a qualified coordinator or competent health occupations teacher. The time allotment is 180 days. This document is available for $1.50 from Industrial Education, 103 Industrial Education Building, University of Missouri, Columbia, Missouri 65201. (JK)

MERCHANDISE DISPLAY

VT 000 005
Principles of Merchandise Display. (Workbook).

Hogue, Kennith C.
Texas Univ., Austin. Dept. of Distributive Education
Texas Education Agency, Austin. Distr. Educ. Service
Pub Date - Apr63
DOCUMENT NOT AVAILABLE FROM EDRS 41p.

*STUDY GUIDES, *DISTRIBUTIVE EDUCATION, *MERCHANDISE DISPLAY, HIGH SCHOOLS, POST SECONDARY EDUCATION, *INDIVIDUAL INSTRUCTION,

This study guide has 44 assignments for use by high school, junior college, or area vocational school distributive education (DE) students who have career interests in display. The assignments, concerned with 25 principles of display and 19 concerned with practice in store displays, are designed to be used with "Principles of Merchandise Display" (VT 000 179) as a reference. Some of the assignment titles are (1) Modern Display Evolves, (2) What Color Does for People, (3) How to Use Balance, (4) Floors and Fixtures, (5) Tools of the Trade, (6) Ladies First, Ways to Display, (7) Display of Lingerie, (8) Gentlemen Next, Clothing, and (9) Window Display of Drugs. The materials were developed by a DE teacher-coordinator with experience in the area of specialization. The objective, an explanation page, reference questions, and projects in which to apply knowledge are included in each assignment. This document is available for $2.00 from Instructional Materials Laboratory, Distributive Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. Also available is "Principles of Merchandise Display" (VT 000 179) for $3.00 and an answer book (VT 000 006) for $1.25 from the same source. (MM)

MERCHANDISING

VT 002 040

Merchandising Group Instruction, A Course of Study Designed for Students Preparing for or Presently Employed in Distributive Education.
Karnes, James B., ed.

Missouri Univ., Columbia. Dept. of Industrial Education

Nov65

DOCUMENT NOT AVAILABLE FROM EDRS 49p.

*DISTRIBUTIVE EDUCATION, *MERCHANDISING, *STUDY GUIDES, HIGH SCHOOLS, POSTSECONDARY EDUCATION,

Developed by inservice teacher education classes, this manual is for use by secondary and post-secondary distributive education students in merchandising in a 180-hour time allotment. Nine units of study list objectives under job training and related information. The units are -- (1) Fundamentals of Retraining, (2) Buying for Consumer Demand, (3) Responsibilities of a Store Buyer, (4) Handling Incoming Merchandise, (5) Pricing for Profits, (6) Selling to Customers, (7) Advertising and Displaying Merchandise, (8) Keeping Records and Controlling Stock, and (9) Observing Government Regulations. Eleven assignment sheets contain references and questions. This mimeographed document is available for $1.50 from Industrial Education, 103 Industrial Education Building, University of Missouri, Columbia, Missouri 65201. A separate answer key (VT 002 041) indicates the source and page numbers for answering each question in the assignment sheets. It is available for 50 cents. (SL)

VT 002 093

Merchandising Individual Study, A Course of Study Designed for Students Preparing for or Presently Employed in Distributive Occupations.
Karnes, James B., ed.

Missouri Univ., Columbia. Dept. of Industrial Education
Missouri State Dep of Educ, Jefferson City. Vocat Ed Div.

Nov65

DOCUMENT NOT AVAILABLE FROM EDRS 103p.

*DISTRIBUTIVE EDUCATION, INDIVIDUAL INSTRUCTION, GRADE 11, *STUDY GUIDES, *MERCHANDISING, *COOPERATIVE EDUCATION,

Related information is presented for individual study by grade 11 students in preparatory and cooperative distributive education programs. The 180-hour course of study was developed by an advisory committee and an inservice teacher education class. Each of 11 assignment sheets contains information, references, and objective-type tests. Job training activities and related information are coordinated with assignments in 2-column form. Examples of the subjects are -- (1) Buying for Consumer Demand, (2) Negotiating for Price, (3) Handling Incoming Merchandise, (4) Advertising and Displaying Merchandise, (5) Keeping Records and Controlling Stock, and (6) Observing Government Regulations. Progress Record forms for use by teacher, employer, and student are included. Mimeographed copies are available for $1.50 from Industrial Education, 103 Industrial Education Building, University of Missouri 65201. A separate answer key (VT 002 071) is available for 50 cents. (SL)

METAL MACHINING OCCUPATIONS

VT 004 067
Jigs and Fixtures.

Ohio State Dept of Ed, Columbus. Trade and Ind Ed Service
Pub Date - 66
MF AVAILABLE IN VT-ERIC SET 78p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *METAL MACHINING OCCUPATIONS, *JIGS (MECHANICAL DEVICES), HIGH SCHOOLS, POST SECONDARY EDUCATION, APPRENTICESHIPS,

This study guide is for student use in acquiring related technical information on jigs and fixtures in high school, post-high school, or apprenticeship machine trades technology programs. It was developed by a statewide committee of teacher educators, state and local supervisors, and instructors. Assignment sheets, based on the textbook "Jig and Fixture Design," give the assignment objective, textbook reference, and study questions. Some of the 29 assignment sheets are (1) Jig and Fixture Design, (2) Simple Drill Template - Design Problem, (3) Plate Type Drill Jigs with Clamping Screws, (4) Straddle Milling Fixtures, (5) Angle Plate Tapping Fixtures, and (6) Angle Plate Tapping Fixtures -- Problem. The material is to be used by individual students in group or individual instruction. The teacher should be a skilled tradesman, and the students should be planning to enter or presently working in a machine trades occupation. Supplementary materials include foldout drawing paper for the design problems, a list of study techniques, and a student progress record. This document is available for $1.23 from Ohio Trade and Industrial Education Service, Instructional Materials Laboratory, The Ohio State University, 1885 Neil Avenue, Columbus, Ohio 43210. (HC)

VT 004 068
Machine Trades I, Learner's Manual.

Ohio State Dept of Ed, Columbus. Trade and Ind Ed Service
Pub Date - 66
MF AVAILABLE IN VT-ERIC SET 258p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *METAL MACHINING OCCUPATIONS, HIGH SCHOOLS, POST SECONDARY EDUCATION, APPRENTICESHIPS, TESTS,

This revised manual is for student use in either group or individual instruction in studying related technical information for the machine trades in vocational high school or post-high school preparatory programs or apprenticeship training. It was developed by a state-wide committee of teacher educators, state and local supervisors, and instructors. The instructional units are (1) Bench Work, (2) Drilling Machine Work, (3) Engine Lathe Work, (4) Turret Lathe Work, and (5) Power Saw Work. Assignment sheets within each unit give the objectives of the assignment, assigned and additional references, related information, and study questions. Most are illustrated with line-drawings and photographs. In general, the assignments are based on three textbooks. A comprehensive objective review or test to check student progress and ability follows each unit. The teacher should be a skilled tradesman, and the students should be planning to enter or presently working in a machine trades occupation. Supplementary materials include lists of assigned and additional references, study techniques, and a student progress chart. This document is available for $3.25 from Ohio Trade and Industrial Education Service, Instructional Materials Laboratory, The Ohio State University, 1885 Neil Avenue, Columbus, Ohio 43210. An answer book (VT 000 696) and "Machine Trades II, Learner's Manual" (VT 000 698), are also available. (HC)

VT 003 743
Machine Shop Individual Study, A Course of Study Designed for Students Preparing for or Presently Employed in Machine Shop Occupations.

Karnes, James B.
Missouri Univ., Columbia. Dept. of Industrial Education
Missouri State Dept of Educ, Jefferson City. Voc Educ Div
Pub Date - May67
MF AVAILABLE IN VT-ERIC SET 125p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *METAL MACHINING OCCUPATIONS, HIGH SCHOOLS,

This study guide is for student use in preparatory or cooperative programs for machinist training at the entry level. It was developed by a committee of teacher educators and coordinators, field tested, and revised periodically. The analysis of necessary skills and knowledge, upon which the content is based, is presented graphically. Some of the 24 assignment sheets are (1) Machine Shop Occupations, (2) Precision Measuring Tools, (3) Layout Tools and Their Uses, (4) Iron and Steel Used in Machine Shops, (5) The Grinding Machine--Types, Construction, and Care, (6) The Lathe--Construction and Care, (7) Standard Fits, Finishes, Forms, Dimensions, and Tolerances, (8) The Shaper--Construction, Care and Use, (9) The Milling Machine--Types, Construction, and Care, and (10) Types of Work Done on the Milling Machine. Each assignment sheet gives the assignment, references, and questions. The material is to be used by individual high school juniors under teacher supervision for 180 days. Training plan and progress record forms for student, teacher, and employer use are included. An answer key (VT 003 744) is available for 50 cents. This document is available for $1.50 from Industrial Education, 103 Industrial Education Building, University of Missouri, Columbia, Missouri 65201. (EM)

MILK PROCESSING

VT 005 260
Milk Processing Plant Employee Course of Study.

Texas A and M Univ., College Station. Agriculture Education Teaching Materials Center
MF AVAILABLE IN VT-ERIC SET.
Pub Date - 67 329p.

RESOURCE MATERIALS; *STUDY GUIDES; *VOCATIONAL AGRICULTURE; ANSWER KEYS; *FOOD PROCESSING OCCUPATIONS; *OFF FARM AGRICULTURAL OCCUPATIONS; *MILK; UNITS OF STUDY (SUBJECT FIELDS); GRADE 11; GRADE 12; TESTS

Developed and reviewed by vocational agriculture teachers and subject matter specialists, this study reference is for high school students in the southern United States with an occupational interest in milk processing. The content includes units on: (1) Milk Processing Industry, (2) Nutritional Properties of Milk, (3) Microbiology and Sanitation, (4) Milk Quality and Control, (5) Milk Processing Equipment, (6) Milk Processing, (7) By-Products and Specialties, (8) Plant Equipment Maintenance, (9) Electrical Power and Refrigeration, (10) Plant Management, and (11) Plant Maintenance. Each unit contains (1) an assignment sheet with the topic, objective, references, and questions or activities, (2) an answer sheet, (3) a topic test, and (4) a test answer sheet. Teachers may use this material for a 175-hour course for 11th and 12th grade students. (DM)

VT 001 187
Learning Experiences in Agricultural Occupations for Students of Vocational Agriculture, Milk Processing Plant.

Clemson Coll., S.C. Dept. of Agricultural Education
South Carolina State Dept. of Education, Columbia
Pub Date - Apr64
MF AVAILABLE IN VT-ERIC SET 4p.

*VOCATIONAL AGRICULTURE, *COOPERATIVE EDUCATION, *MILK, *LEARNING EXPERIENCE, *LIVESTOCK PROCESSING OCCUPATIONS, JOB SKILLS,

The purpose of this guide is to assist vocational agriculture teachers and students in planning and evaluating work experiences in milk processing businesses. It was developed by a teacher educator in consultation with a dairy science professor for use in a 50-hour placement activity. Forty-two learning experiences are listed under ice cream, cheese, milk, and butter processing. A space is provided for the employer to check satisfactory completion of each experience. Single copies of this document are available without charge from Agricultural Education Department, Clemson University, Clemson, South Carolina 29631. (JM)

NATURAL RESOURCES

VT 005 494
Agricultural Resources (Conservation-Utilization-Services), Student Study Guide.

Alabama State Dept of Educ, Montgomery. Agr Educ Service
Pub Date - 66
MF AVAILABLE IN VT-ERIC SET. 20p.

*STUDY GUIDES, *VOCATIONAL AGRICULTURE, *NATURAL RESOURCES, GRADE 12, GRADE 11, CONSERVATION EDUCATION, Alabama, Southeastern United States,

Study questions, learning activities, and references concerned with principles and practices in the conservation, utilization, and service of agricultural resources are presented for individualized use by high school vocational agriculture students and teachers. It was designed by a district supervisor with the assistance of a subject-matter specialist and teacher educator. Major units are (1) Career Opportunities in Agricultural Resources, (2) Soil Conservation and Utilization, (3) Recreation, Development, and Management, (4) Wildlife Conservation and Utilization, (5) Water Conservation and Utilization, (6) Air Conservation, and (7) Fish, Including Farms and Hatcheries. The time allotment is to be determined by the local teacher. Teachers with general vocational agriculture college training may use this material with junior and senior boys who have completed 2 years of vocational agriculture. Some employment opportunities are listed. (WB)

NEWSPAPER CIRCULATION

VT 003 184
Newspaper Circulation, Principles and Development of Modern Newspaper Circulation Methods.

Texas Circulation Managers Assn.
Texas Univ., Austin. Instructional Materials Laboratory
Pub Date - Oct66
DOCUMENT NOT AVAILABLE FROM EDRS 231p.

*STUDY GUIDES, *TEXTBOOKS, *DISTRIBUTIVE EDUCATION, *NEWSPAPERS, *MARKETING, HIGH SCHOOLS, ADULT VOCATIONAL EDUCATION, INDIVIDUAL INSTRUCTION,

Specific instruction for distributive education students or adults training for newspaper circulation management is provided in this book. Originally published in 1948 by the Texas Circulation Managers Association, the material was revised at the request of the State Board of Vocational Education, and the assignments were written by a distributive education teacher-coordinator. Subject areas are (1) Introduction to Newspaper Circulation Work, (2) Circulation Operation Procedure, (3) The Newspaper Carrier, His Responsibilities and Training, (4) Duties and Training of Supervisory Personnel, and (5) Country Circulation. Twenty-six assignments have questions and projects coordinated with the instructional content. This document is available for $4.00 from Instructional Materials Laboratory, Distributive Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. An answer book (VT 003 183) is available from the same source for $2.50. (MM)

NURSERY WORKERS

VT 000 955
Learning Experiences in Agricultural Occupations for Students of Vocational Agriculture, Plant Nurseries.

Clemson Coll., S.C. Dept. of Agricultural Education
South Carolina State Dept. of Education, Columbia
Pub Date - Apr64
MF AVAILABLE IN VT-ERIC SET 4p.

*VOCATIONAL AGRICULTURE, *COOPERATIVE EDUCATION, *NURSERY WORKERS (HORTICULTURE), *JOB SKILLS, *LEARNING EXPERIENCE, HIGH SCHOOLS,

The purpose of this guide is to assist the vocational agriculture teacher and student in planning and evaluating work experiences in plant nurseries. It was developed by a teacher educator for use in a 150-hour placement experience. Listed are 26 experiences common to work in a plant nursery such as propagating plants, preparing and maintaining cold frames, preparing and maintaining hot beds, sterilizing soil, taking soil samples for testing, applying plant nutrients, operating a greenhouse, growing plants in the open, maintaining ornamentals, marketing plants, landscaping, and establishing a lawn. Space to check the performance of each activity is provided. Single copies of this document are available without charge from Agricultural Education Department, Clemson University, Clemson, South Carolina 29631. (JM)

VT 004 554
Dawson, C.G.
Nursery Practices.

North Carolina State Board of Education, Raleigh. Curriculum Lab.
MF AVAILABLE IN VT-ERIC SET.
Pub Date - May64 24p.

*TEACHING GUIDES; *CURRICULUM GUIDES; ADULT VOCATIONAL EDUCATION; *NURSERIES (HORTICULTURE); *AGRICULTURAL EDUCATION; NURSERY WORKERS (HORTICULTURE)

This document provides information to assist teachers in training workers for initial employment in the nursery industry. It was designed to develop in students the ability to understand the nursery industry and to perform selected nursery practices. A course is outlined for community college students as part of an occupational cluster in agricultural and biological education. It was developed by an agricultural consultant and evaluated by community college instructors. This 144-hour course includes sections on the nursery industry, plant propagation, nursery plant production principles and practices, plant identification, landscaping, sales yard practices, and management. The teacher should be an agricultural college graduate with course work in landscape horticulture. Supplementary materials include a reference list and laboratory exercises with suggested time allotments. (DM)

NURSES AIDES

VT 000 244

Supervised Study Guide, Nurse Aide.
Williams, O. O.

Texas Univ., Austin. Dept. of Industrial Education

Oct65

DOCUMENT NOT AVAILABLE FROM EDRS 119p.
*STUDY GUIDES, *HEALTH OCCUPATIONS EDUCATION, *NURSES AIDES, *NURSING, GRADE 11, GRADE 12, *COOPERATIVE EDUCATION,

Related technical instruction for students in grades 11 and 12 in a cooperative, on-the-job, 2-year educational program for nurse aides is presented. It is oriented toward preparing the aide to care for patients in hospitals or nursing homes. Materials were developed by a coordinator specialist and reviewing committee at the state level. Assignment sheets are included for the units -- (1) Meeting the Patient's Needs, (2) Assisting with Patient's Personal Needs, (3) The Body in Need of Care -- Structure and Functions, (4) Assisting with Diagnostic Measures, (5) Assisting in Giving Treatments, (6) Assisting with Specialized Types of Care, (7) Assisting with Emergency Care, and (8) Care of Equipment. Progress record sheets provide both job and related assignment lists to be used by the teacher and student in recording student progress. Five required and two supplemental references are listed. A test booklet (VT 000 246) and answer booklet (VT 000 245) are available for use with the guide. The study guide and unit tests are available for $4.35 and the answer booklet for $3.15 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (PS)

VT 002 036

Nursing Assistant, A Course of Study Designed for Cooperative Part-Time Students Employed in Nursing Occupations.
Karnes, James B., ed.

Missouri Univ., Columbia. Dept. of Industrial Education
Missouri State Dep of Educ, Jefferson City. Ind Educ Sect

Jan67

DOCUMENT NOT AVAILABLE FROM EDRS 112p.

*STUDY GUIDES, *HEALTH OCCUPATIONS EDUCATION, *NURSES AIDES, *NURSING, HOSPITALS, HIGH SCHOOLS, POSTSECONDARY EDUCATION, *COOPERATIVE EDUCATION, INDIVIDUAL INSTRUCTION,

Related occupational information is presented for individual student use in high school or post-secondary cooperative part-time programs. The material was developed by subject matter specialists and research assistants in consultation with a committee and revised after several years use. Job training activities and related information are correlated with 24 assignment sheets each of which gives information, references, and objective-type questions. Some assignment sheets are -- (1) Nursing as a Career, (2) Personality and Personal Hygiene, (3) Care of Hospital Equipment, (4) Care of Patient's Unit, (5) Admission and Discharge of Patients, (6) Daily Care and Personal Service, (7) Comfort and Rehabilitation, (8) Body Mechanics and Moving Patients, (9) ....

Shampooing Hair, (10) Recreational Diversions for Patients, (11) Charts and Records, (12) Examination Procedures, (13) Administration of Medicines, (14) Dressings and Bandages, (15) Isolated Patient, and (16) Care of the Mother and Her Baby. Time allotment is 180 hours. The student should be a senior in high school and have prerequisite courses in basic health occupations. An instructor's answer key (VT 002 074), 50 cents each, and this study guide, $1.50 each, are available from Industrial Education, 103 Industrial Education Building, University of Missouri, Columbia, Missouri 65201. (PS)

OFFICE MACHINE SERVICE

VT 003 827
Supervised Study Guide for Typewriter Serviceman.

Texas Univ., Austin. Dept. of Industrial Education
Pub Date - Jul67
DOCUMENT NOT AVAILABLE FROM EDRS 78p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *OFFICE MACHINE SERVICEMEN, *TYPEWRITERS, HIGH SCHOOLS, *INDIVIDUAL INSTRUCTION, COOPERATIVE EDUCATION,

This guide is for student use in acquiring related technical information for typewriter serviceman in high school coopearative education programs. It was developed by an instructional materials specialist and an advisory committee. The 25 units contain assignment sheets which present the lesson subject, aim, introductory information, references, and questions. Typical unit titles are (1) Main Carriages, (2) Motion and Shift Mechanism, (3) Paper Feed, (4) Ribbon Feed, and (5) Cleaning. The material is to be used by individual students under teacher supervision for 2 years or 360 hours of directed study. The teacher should have normal education for high school coordinators, and the students should be in grades 11 or 12, employed in a cooperative training program, and have the occupational goal of entering typewriter servicemen. Supplementary materials include a 2-year job and class progress record and a bibliography of required and supplementary references. Unit tests are available in a test booklet (VT 003 829). Answers for the unit tests and study guide questions are available in VT 003 828. This document is available with the test booklet (VT 003 829) for $3.15 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (HC)

OPERATING ENGINEERS

VT 004 170
Operating Engineers, Internal Combustion Engines Workbook.

Dees, Danny O.
California State Dep of Educ, Sacramento. Bur of Ind Educ
Pub Date - 67
MF AVAILABLE IN VT-ERIC SET. 183p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, OPERATING ENGINEERS, *ENGINES, DIESEL ENGINES, POST SECONDARY EDUCATION, *APPRENTICESHIPS, For student use in acquiring related technical information on internal combustion engines in the operating engineers apprenticeship training program, this workbook was developed by a State Educational Advisory Committee consisting of top representatives from management and labor groups. The units of instruction are (1) General Description and Construction, (2) Engine Principles, (3) Engine Components, (4) Fuel Systems and Carburetion, (5) Engine Cooling and Lubrication, (6) Gas Engine Electrical System, and (7) Preventive Maintenance, Repairs, and Parts Ordering. Topic assignments within each unit contain objectives in question form, related technical information, study references, a study guide with short answer questions, and true-false tests. The material is to be used by the individual apprentice under teacher direction for one year or 144 hours of instruction. The teacher should be a qualified journeyman from the trade, and the students must be indentured operating engineer apprentices. Each topic is illustrated with line drawings and photographs. The table of contents provides spaces for instructor use in recording the assignment date of each topic. Textbooks and final examinations are available to the instructors. This document is available for $2.00 from Bureau of Industrial Education, California State Department of Education, 721 Capitol Mall, Sacramento, California 95814. (HC)

VT 004 171
Operating Engineers, Heavy Equipment and Its Uses, Workbook.
Dees, Danny O.
California State Dep of Educ, Sacramento. Bur of Ind Educ
Pub Date - 66
MF AVAILABLE IN VT-ERIC SET 180p.

TEXTBOOKS, *STUDY GUIDES, WORKBOOKS, *TRADE AND INDUSTRIAL EDUCATION, *OPERATING ENGINEERS, POST SECONDARY EDUCATION, *APPRENTICESHIPS,

This textbook workbook is for student use in the related technical instruction phase of the operating engineer apprenticeship training program. It was developed by the Operating Engineers State Educational Advisory Committee composed of top representatives from management and labor groups. The purpose of the material is to acquaint the operating engineer apprentice with heavy equipment and its uses. The units are (1) Revolving Shovel and Crane-Type Equipment, (2) Material Hoisting and Handling Equipment, (3) Tractors, (4) Graders, (5) Scrapers, (6) Loaders, (7) Compaction Equipment, (8) Plant Equipment, and (9) Paving Equipment. Each unit contains study topics with illustrated related technical information, safety precautions for equipment, operation, work exercises in the form of short-answer questions, and a checkup true-false quiz which the student completes then checks by reviewing the related instructional information. The material is to be used by the individual student or in classroom instruction groups for 144 hours. The teacher must be a qualified journeyman from the trade, and the students must be indentured apprentices. The course consists of the textbook-workbook for the apprentice and testbooks and final examinations for the instructor's use. This document is available for $1.50 from Bureau of Industrial Education, California State Department of Education, 721 Capitol Mall, Sacramento, California 95814. (HC)

OPTICIANS

VT 002 280

Supervised Study Guide for Optician, Dispensing Optician, and Optical Mechanic.
Cockrum, Jim

Texas Univ., Austin. Dept. of Industrial Education

Feb67

DOCUMENT NOT AVAILABLE FROM EDRS 185p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *OPTICIANS, OPTICS, GRADE 11, GRADE 12, COOPERATIVE EDUCATION, OCCUPATIONAL INFORMATION.

For use in presenting related technical instruction to students in optician cooperative training programs in area vocational or technical high schools, this material was developed by an instructional materials specialist and an advisory committee. The major areas of study are -- (1) Introduction to Optics and the Vocation of Optician, (2) Prescriptions for Single-Vision Lenses, (3) Prescriptions for Bifocals, (4) Manufacturing Prescription Lenses, (5) Inserting and Mounting Lenses, (6) Selecting and Fitting Frames and Mountings, and (7) Adjusting Frames and Mountings. Assignment sheets give the lesson subject and aim, introductory information, study reference, and questions. Information sheets contain materials that are not available or that are inadequately presented in the reference books. Line drawing illustrations are provided. The study of this material by grade 11 and grade 12 students employed in 2-year cooperative programs is to be supervised by a related subjects teacher or teacher-coordinator. Progress record forms are provided for teacher and student use in checking the progress of planned work experiences and related technical study. The bibliography contains required and suggested reference books. The study guide and unit tests (VT 002 278) are available for $7.50 per set from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. An answer book (VT 002 279) for the written assignments and unit tests is available for $2.50. (HC)

ORNAMENTAL HORTICULTURE

VT 001 132 ED 013 891

Parks and Landscape Employee. (Teachers Copy).
Fitts, James * Johnson, Johnny

Texas Agr. and Mechanical Univ., College Station
Texas Education Agency, Austin

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EDRS Price MF-$0.45 HC-NOT AVAILABLE FROM EDRS 330p.

*VOCATIONAL AGRICULTURE, *COOPERATIVE EDUCATION, *STUDY GUIDES, *LANDSCAPING, *ORNAMENTAL HORTICULTURE OCCUPATIONS, TESTS, ANSWER KEYS, The purpose of this document is to provide vocational agriculture cooperative education students preparing for employment in the park and landscaping field with reading material and a guide for study. The material was designed by subject matter specialists on the basis of state advisory committee recommendations. The material was tested in operational programs and refined by two teachers. Units included in the course are -- (1) Introduction to Horticulture, (2) Plant Growing Media, (3) Plant Growth and Classification, (4) Plant Propagation, (5) Nursery Plant Production, (6) Floral Crop Production, (7) Establishing and Caring for Lawns, (8) Controlling Plant Insects, Diseases, and Other Pests, (9) Operating and Maintaining Horticultural Equipment, (10) Developing and Maintaining the Landscape. Materials for each unit include information sheets, assignment sheets, assignment answer sheets, topical tests, and test answer sheets. The course is designed for 175 periods of 50 minutes each. Students may be male or female, 16 to 20 years of age, and should be employed. Textbooks, bulletins, and commercial data are recommended for use with the study guide. The document is printed and looseleaf. This document is available in limited numbers for $4.50 each from the Agricultural Education Teaching Materials Center, Texas Agricultural and Mechanical University, College Station, Texas 77843. (JM)

VT 005 490
Ornamental Horticulture (Production-Processing-Marketing-Services), Student Study Guide.

Alabama State Dept of Educ, Montgomery. Agr Educ Service.
Pub Date - 63
MF AVAILABLE IN VT-ERIC SET. 39p.

*STUDY GUIDES, *VOCATIONAL AGRICULTURE, *ORNAMENTAL HORTICULTURE OCCUPATION, *ORNAMENTAL HORTICULTURE, GRADE 11, GRADE 12, BIBLIOGRAPHIES,

Questions and suggested learning activities concerned with the principles and operations involved in the production, processing, marketing, and services of ornamental horticulture products are presented in this study guide for individualized use by high school vocational agriculture students. It was designed by a vocational agriculture supervisor with the assistance of a subject-matter specialist, a teacher educator, and college horticulture staff members. The units are (1) exploring occupational opportunities in ornamental horticulture plants, (2) identifying ornamental horticulture plants, (3) propagating horticulture plants, (4) using soil and other plant growing media, (5) producing the floral crop, (6) designing floral arrangements, (7) producing the nursery crop, (8) controlling plant insects and diseases, (9) constructing, maintaining, and using plant growing structures, (10) merchandising horticultural plants and supplies, (11) developing the landscape design or plan, (12) establishing and caring for lawns and turfs, and (13) practicing aboriculture. The time allotment is to be determined by the local instructor. Teachers with general vocational agriculture college training who have specialized in horticulture may use this material with 11th and 12th grade boys who have completed 2 years of vocational agriculture. A list of employment opportunities in ornamental horticulture occupations and suggested references are included. (WB)

VT 007 270 ED 023 919
Stinson, Richard F., And Others
Retail Flower Shop Operation and Management. A Teacher's Manual.

Pennsylvania Agricultural Experiment Station, University Park
Office of Education (DHEW), Washington, D.C. Educational Resources Development Branch
EDRS PRICE MF-$0.75 HC-$6.50 OEC-5-85-014 08
BR-5-0022

Pub Date - 68 163p.

*TEACHING GUIDES; *VOCATIONAL AGRICULTURE; REFERENCE MATERIALS; *ORNAMENTAL HORTICULTURE OCCUPATIONS; *FLORICULTURE; MANAGEMENT; SALESMANSHIP; MARKETING; ACHIEVEMENT TESTS

Field tested by teachers attending an institute in landscape horticulture July 5-22, 1966, this teacher's manual is one of a series of instructional aids developed by the Department of Agricultural Education at the Pennsylvania State University. The content includes problem areas of: (1) Exploring Occupational Opportunities in the Retail Flower Shop Business, (2) Uses and Characteristics of Flowers, Plants, and Decorative Materials, (3) Designing with Flowers and Decorative Materials, (4) Using Flower Arrangements, (5) Merchandising and Selling, and (6) Retail Flower Shop Management. In addition to the student material contained in VT 007 271, this document incorporates at the end of each unit suggestions and references for the teacher, suggested learning activities, suggested placement experiences, and a sample test. The material was developed for schools near large centers of population for use in team teaching involving the teacher of agriculture, a business teacher, and a distributive education teacher. Course length may vary from 6 weeks to 1 semester with students of upper high school or post high school level, who are interested in entering careers in retail flower shops and who have opportunity for occupational work experience in floriculture. A course examination is included. (DM)

PAINTERS

VT 000 159
Paint and Wallpaper.

Click, Carrol
Texas Univ., Austin. Ind. and Business Training Bureau
Texas Education Agency, Austin. Distr. Education Service
Pub Date - Jun63
DOCUMENT NOT AVAILABLE FROM EDRS 183p.

*ANSWER KEYS, *DISTRIBUTIVE EDUCATION, *MERCHANDISING, *PAINTS, *WALLPAPER, HIGH SCHOOLS, POST SECONDARY EDUCATION, INDIVIDUAL INSTRUCTION,

Information and assignments are provided for directed individual instruction of distributive education (DE) students with a career objective in the field of paint and wallpaper merchandising. Development of the manual was by a DE teacher-coordinator experienced in the merchandising area. There are 19 lessons in the area of paint and 15 in the area of wallpaper. Some of the subjects included are (1) opportunities as a paint salesman, (2) types of paints, (3) paint brushes, (4) application of paint products, (5) care of brushes, (6) estimating, (7) color schemes, (8) paint failures, (9) building goodwill, (10) selling, (11) stockroom management, (12) selling color in wallpaper, (13) how to hang wallpaper, and (14) display. Each assignment consists of subject matter title, reference, questions and/or projects. This document is available for $4.00 from Instructional Materials Laboratory, Distributive Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. An answer book (VT 000 153) is also available for $2.50 from the same source. (MM)

VT 002 089
Painting and Decorating, A Course of Study Designed for Cooperative Part-Time Students Employed by Painters and Decorators.

Karnes, James B.
Missouri Univ., Columbia. Dept. of Industrial Education
Missouri State Dept. of Education, Jefferson City.
Pub Date - May66
MF AVAILABLE IN VT-ERIC SET 99p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *PAINTERS, GRADE 11, GRADE 12, *COOPERATIVE EDUCATION,

This study guide is for use by preparatory or cooperative students in painting and decorating courses. It was developed by teacher educators and research assistants with help from a consultant committee. Assignment sheet titles are (1) The Paint Industry, (2) Health and Safety, (3) Tools and Equipment, (4) Surface Preparation, (5) Paint Mixing, (6) Paint Application, (7) Finishing Wood with Shellac, Varnish, and Lacquer, (8) Color Harmony, (9) Color Styling, (10) Special Finishes, (11) Wall Coverings, (12) Estimating, and (13) The Paint Contractor. Each assignment sheet gives an assignment, reference, and objective-type questions. The suggested time allotment is 180 days. The teacher should be a qualified coordinator or trade teacher and students should be at least high school juniors with the proper prerequisites. A job and information analysis and progress records for use by student, teacher, and employer are included. An answer key VT 002 088 is available for 50 cents. This document is available for $1.50 from Industrial Education, 103 Industrial Education Building, University of Missouri, Columbia, Missouri 65201. (EM)

PATTERNMAKERS

VT 001 872 ED 012 782

Pattern Making and Design.
Colicchio, Antoinette J.

Rutgers State Univ., New Brunswick, N. J.

New Jersey State Dep. of Educ., Trenton. Vocat. Div.

Jan67

EDRS Price MF-$0.45 HC-NOT AVAILABLE FROM EDRS 313p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *CLOTHING DESIGN, *PATTERNMAKING, HIGH SCHOOLS, NEEDLE TRADES,

Skills in patternmaking are important to all employed in the designing room in women's garment manufacture. The objective of this course of study is to acquaint the student with the tools and symbols of patternmaking and to help him master the basic fundamentals of pattern development. It follows the course of study approved by the Board of Education and was tested in various classrooms. Theory and principles are combined with practical and creative application in costume design. Units are -- (1) Introduction to Patternmaking and Design, (2) Slopers, (3) Waists, (4) Necklines, (5) Closings and Extensions, (6) Collars, (7) Sleeves, (8) Skirts, (9) Pockets, and (10) Belts. Each unit includes objectives, related information, assignments, and illustrations. The course requires three periods per week for 1½ years. Students should be of high school age with aptitudes and goals for the needle trades. The teacher should be a needle trades instructor. Included are objective and performance tests, illustrations, and a bibliography. This document is available for $2.00 from Vocational-Technical Curriculum Laboratory, Rutgers University, 10 Seminary Place, New Brunswick, New Jersey 08903. (MS)

PHOTOGRAPHY

VT 003 122

Photography, A Study Guide and Progression Record in Photography for Use in a Cooperative Training Program. (File, no. 311).
Pass, William A.

Alabama Univ., University. Dept. of Trade and Ind. Educ.

Apr66

DOCUMENT NOT AVAILABLE FROM EDRS 102p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *PHOTOGRAPHY, GRADE 11, GRADE 12, STUDENT RECORDS, COOPERATIVE EDUCATION.
Job sheets in this guide direct individual study in cooperative education programs in photography. The study guide was developed by trade and industrial coordinators, subject matter specialists, and teacher educators and was tested by use in high school programs. Each of the 86 job sheets contains a job title, related study references, and essay-type questions. A trade analysis and progress record form provides space for recording student test grades, job experiences, and completed related study. Representative job sheet titles are -- (1) Operate a Twin-Lens Reflex Camera, (2) Calibrate a Lens, (3) Calculate Depth of Field, (4) Use Developers, (5) Glaze Prints, (6) Make Large Prints, and (7) Hand Color a Print or Enlargement. The material is designed for use by high school students for 1 hour per day in a 2-year program in area vocational or comprehensive high schools. Two correlated texts and supplementary reference materials are listed in the bibliography. This document is available for $2.25 from Trade and Industrial Education, Box 2847, University, Alabama 35486. An answer book (VT 003 123) is available from the same source for $2.00. (HC)

POULTRY PROCESSING

VT 000 947
Learning Experiences in Agricultural Occupations for Students of Vocational Agriculture, Poultry Processing Plants.

Clemson Coll., S.C. Dept. of Agricultural Education
South Carolina State Dept. of Education, Columbia
Pub Date -- Apr64
MF AVAILABLE IN VT-ERIC SET 5p.

*VOCATIONAL AGRICULTURE, *POULTRY PROCESSING OCCUPATIONS, HIGH SCHOOLS, *COOPERATIVE EDUCATION, *LEARNING EXPERIENCE, *JOB SKILLS.
Designed for use by high school teachers as course planning material in vocational agriculture, this publication contains a list of learning experiences and activities needed by employees in poultry processing plants. It was developed by an individual author from a survey of poultry processors. Major divisions are (1) Experiences in Producing Broilers which includes selecting breeds for broilers, preparing brooder houses, maintaining proper temperature, following sanitary practices, and feeding before marketing, and (2) Experiences in Poultry Processing which includes killing chickens, sizing and weighing, packing for marketing, taking orders, and keeping records. Space to check performance of each activity is provided. The suggested time allotment is 160 hours. Qualified agriculture teachers may use this material with students

interested in poultry processing. Single copies of this document are available without charge from Agricultural Education Department, Clemson University, Clemson, South Carolina 29631. (WB)

PRACTICAL NURSES

VT 000 783
Smith, Elizabeth M.
Nursing Procedures for the Practical Nurse; Learner's Manual.

Ohio State Dept. of Education, Columbus. Trade and Industrial Education Service
Ohio State Univ., Columbus. Instructional Materials Lab.
MF AVAILABLE IN VT-ERIC SET.
Ohio Trade and Industrial Education Service, Instructional Materials Laboratory, The Ohio State University, 1885 Neil Avenue, Columbus, Ohio 43210 ($4.00).
Pub Date - Feb66 454p.

*STUDY GUIDES; *HEALTH OCCUPATIONS EDUCATION; *PRACTICAL NURSES; *PRACTICAL NURSING; ADULT VOCATIONAL EDUCATION

Developed by a committee of instructors with local and state supervisors, this manual contains 81 nursing procedures and 68 assignment sheets designed to assist the student in learning nursing procedures. The exact method for use of this material can vary according to the instructional situation. Typical assignment sheet subjects are interpretation of medical abbreviations, admission of patient, asepsis, measurement of intake and output, and collection of specimens. These assignment sheets list objectives, assigned readings, and questions. Typical procedures presented are back rub, body positions, draping, enema, hypodermic injection, and postoperative care. These are organized to include introductory information, purpose, equipment, safety factors, steps, and keypoints. A separate answer booklet, "Nursing Procedures for the Practical Nurse Answer Book" is available as VT000 784. (JK)

VT 000 785
Nursing Arts Practice.

Ohio State Dept. of Education, Columbus. Trade and Industrial Education Service
MF AVAILABLE IN VT-ERIC SET.
NALM-1
Ohio Trade and Industrial Education Service, Instructional Materials Laboratory, The Ohio State University, 1885 Neil Avenue, Columbus, Ohio 43210 ($1.62).
Pub Date - 66 162p.

*STUDY GUIDES; *SKILLS; MANUALS; *HEALTH OCCUPATIONS EDUCATION; *PRACTICAL NURSES; *NURSES AIDES; NURSING; ADULT VOCATIONAL EDUCATION

This procedure manual for use by adult students preparing to become practical nurses or nurse aides was developed by a committee of instructors and other professional nurses on the local level. After use on a trial basis it was revised. Procedures are based on practices followed in a number of Cleveland hospitals. Information sheets cover such topics as admission, transfer, and discharge of patients, alcohol sponge bath, and bed cradles. Objectives, background information, and supplemental information are outlined. Procedure sheets on such topics as afternoon care, assisting the patient from bed to chair, tub bath, and surgical bed outline purpose, equipment, procedure and important points to remember. A total of 64 instruction and procedure sheets are included. (JK)

PRINTERS

VT 003 109

Printing, A Study Guide and Progression Record for Printing Students in a Cooperative Training Program. (File, no. 376).
Alabama Univ., University. Dept of Trade and Ind. Educ.

Dec64

DOCUMENT NOT AVAILABLE FROM EDRS 135p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *PRINTERS, PRINTING, GRADE 11, GRADE 12, STUDENT RECORDS, *COOPERATIVE EDUCATION,

Question-type job sheets in this guide are for use in directing related study for students in a 2-year cooperative training program in printing. The material was developed by trade and industrial coordinators, subject matter specialists, and teacher educators and was tested by use in high school programs. Units are -- (1) Type, (2) Composition, (3) Commercial Composition, (4) English, (5) Linotype, (6) Press, and (7) Bookbinding. Job sheets are keyed to selected references and contain spaces for recording completed job experiences and related readings. A trade analysis progress record forms are provided for teacher and student use in recording composite job performance and reference readings. The material was developed for grade 10, 11, and 12 students in area vocational and comprehensive high schools. This mimeographed document includes a bibliography of correlated references. This document is available for $2.25 from Trade and Industrial Education, Box 2847, University, Alabama 35486. An answer book (VT 003 111) is available from the same source for $2.00. (HC)

VT 002 042

Offset Lithography, A Course of Study Designed for Cooperative Part-Time Students Employed in Lithographic Occupations.

Karnes, James B.
Missouri Univ., Columbia. Dept of Industrial Education
Pub Date - Apr64
MF AVAILABLE IN VT-ERIC SET 139p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *PRINTERS, *OFFSET LITHOGRAPHY, *COOPERATIVE EDUCATION,

This study guide is for student use in preparatory or service training courses for offset lithographers. It was developed by research assistants and an advisory consultant. Assignment sheets cover (1) History of Offset Printing, (2) Offset Printing as a Vocation, (3) Accidents and Health Hazards, (4) Methods of Type Composition and Reproduction, (5) Job Planning, Artwork, and Layout, (6) Proofreading and Legal Restrictions, (7) Basic Photograph Processes in Lithography, (8) Line and Halftone Photography, (9) Film Developing, (10) Negative Corrections, Stripping, and Opaquing, (11) Platemaking, (12) Papers and Inks for Offset Printing, (13) Fundamentals of Offset Presswork, (14) Makeready on Offset Presses, (15) Operation of an Offset Press, (16) Offset Press Troubles, (17) Offset Duplicators, and (18) Bindery Operations. Assignment sheets give assignment, references, and questions. Instruction time required is 180 class hours. The instructor should be a qualified coordinator. Students should be at least high school juniors. Supplementary materials include a reference bibliography, an analysis of offset printing, and a progress record. Answers for this guide are available in VT 002 052 for 50 cents. This document is available for $1.50 from Industrial Education, 103 Industrial Education Building, University of Missouri, Columbia, Missouri 65201. (EM)

VT 002 076

Printing, A Course of Study Designed for Cooperative Part-Time Students Employed in Printing Shops.

Karnes, James B., ed.
Missouri Univ., Columbia. Dept. of Industrial Education
Missouri State Dep of Educ, Jefferson City. Ind Educ Sect
Pub Date - May63
MF AVAILABLE IN VT-ERIC SET 146p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *PRINTERS, *PRINTING, GRADE 11, GRADE 12, *COOPERATIVE EDUCATION,

This study guide is for use by individual preparatory or cooperative students at the secondary or post-secondary level. It was developed by teacher educators and research assistants with help from a consultant committee. Assignment sheet titles are (1) History of Printing, (2) Printing as a Vocation, (3) Accident and Health

Hazards, (4) The California Job Case, (5) Characteristics of Type and Spaces, (6) The Printer's System of Measurement, (7) The Process of Setting Type, (8) The Handling of Type, (9) Processing Good Proofs, (10) Standard Proofreaders' Marks, (11) Distribution, (12) Printing Layouts, (13) Paper, (14) Job Composition, (15) Imposition and Lock-Up, (16) Letterpresses, (17) Platen Press Preparation, (18) Bindery Room Operations, (19) Printing Plates, (20) Typecasting Machines, (21) Linotype Matrix Mechanisms, (22) Linotype Casting Mechanism, (23) Linotype Distribution Mechanisms, (24) Problems in Linotype Operation, and (25) Printing--Buying, Selling, and Producing. Each assignment sheet gives the assignment, references, and objective-type questions. Suggested time allotment is 180 days. An analysis of the necessary jobs and related information and progress records for use by student, teacher, and employer are included. An answer key (VT 002 075) is available for 50 cents. This document is available for $1.50 from Industrial Education, 103 Industrial Education Building, University of Missouri, Columbia, Missouri 65201. (EM)

RADIO OCCUPATIONS

VT 000 705
Understanding Radio, Learner's Manual.

Ohio State Dept of Ed, Columbus. Trade and Ind Ed Service
Pub Date - 65
MF AVAILABLE IN VT-ERIC SET 157p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *ELECTRICAL OCCUPATIONS, *RADIO, HIGH SCHOOLS, APPRENTICESHIPS, POST SECONDARY EDUCATION,

This study guide presents assignment sheets to assist the vocational high school, apprenticeship, or post-high school student in the related technical study of radio fundamentals. The material was developed by a state-wide committee of teacher-educators, state and local supervisors, and instructors. It has had extensive classroom validation. The 62 assignment sheets are correlated with the units of instruction as outlined in "Understanding Radio, Instructor's Manual" (VT 000 704). Units include Radio Waves and Wave Travel, Ohms Law by Simple Mathematics, Detectors, Resonance and Tuning, Short Wave Sets, and Frequency Modulation. Each sheet provides objectives, an assignment from the textbook "Understanding Radio," questions, and technical terms for definition. These assignments are designed to be used for individual instruction or to direct student study after group instruction. The students should be planning to enter or presently working in the electrical trades. The teacher should be a skilled tradesman. Answers to the questions are given in the Instructor's Manual. This study guide is available for $1.60 from Ohio Trade and Industrial Education Service, Instructional Materials Laboratory, The Ohio State University, 1885 Neil Avenue, Columbus, Ohio 43210. (HC)

REFRIGERATION & AIR CONDITIONING

VT 000 229

Supervised Study Guide in Refrigeration and Air Conditioning.

Texas Univ., Austin. Dept. of Industrial Education

Texas State Dept. of Educ., Austin. Industrial Educ. Div.

Dec64

DOCUMENT NOT AVAILABLE FROM EDRS 124p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *REFRIGERATION, *REFRIGERATION MECHANICS, *AIR CONDITIONING, GRADE 11, GRADE 12, COOPERATIVE EDUCATION,

The related technical information in this guide is for use by junior and senior students in 2-year cooperative training programs in area vocational or technical high schools. It was developed by an instructional materials specialist and a committee at the state level. Assignment sheets cover (1) Principles of Refrigeration, (2) Fundamental Service Operations, (3) Temperature Controls, (4) Refrigerator Cabinets, (5) Conventional Systems, (6) Refrigerant Controls, (7) Hermetic Units, (8) Charging Refrigeration Units, (9) Major Repairs, (10) Automatic Defrosting Systems, (11) Commercial Refrigeration Service, (12) Commercial Refrigeration Installation, (13) Multiple Installations, (14) Air Conditioning, (15) Absorption Systems, and (16) The Service Shop. Each sheet gives subject, aim, introductory information, reference, and questions or problems. Information sheets contain material not available or not suitably presented in references. A bibliography lists required and supplementary references and films. Tests are available in VT 000 230 with test answers in VT 000 231. Both, with the guide, are available for $5.90 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (EM)

VT 005 846
Faris, Kamil J.
Practical Electricity in Refrigeration and Air Conditioning. Part I.

New Jersey State Dept. of Education, Trenton. Div. of Vocational Education
Rutgers-The State Univ., New Brunswick, N.J. Curriculum Laboratory
MF AVAILABLE IN VT-ERIC SET.
Vocational-Technical Curriculum Laboratory, Rutgers University, 10 Seminary Place, New Brunswick, New Jersey 08903 ($2.50).
Pub Date - Mar68 258p.

*STUDY GUIDES; *TRADE AND INDUSTRIAL EDUCATION; *REFRIGERATION MECHANICS; APPLIANCE REPAIRING; *AIR CONDITIONING; REFRIGERATION; *ELECTRICITY; GRADE 11

This study guide is for student use in trade and industrial courses for refrigeration and air conditioning maintenance and repair. It was developed by vocational teachers and used in local schools for two years before publication. Included are 145 lessons, 30 job sheets, and 13 essay tests under these major topics: (1) Shop Adjustment, (2) Safety, (3) Compressors, (4) Motors, (5) Electric Power, (6) Fuses, (7) Motor Compressor Components, (8) Capacitors, and (9) Relays. Each lesson gives an educational objective, instructional information, illustrations, and study questions. Each job sheet gives an objective, a tool list, a material list, and task procedures. The material is to be used by 11th grade male students under teacher supervision for one term. The teacher should have appropriate trade experience and certification. The document is profusely illustrated with schematics, line drawings, and photographs. (EM)

RETAIL CREDIT

VT 000 140
Retail Credit Fundamentals.

Cobb, E. H. * Pettie, Jean
Texas Univ., Austin. Dept. of Distributive Education
Texas Education Agency, Austin. Distr. Educ. Service
Pub Date - Nov64
DOCUMENT NOT AVAILABLE FROM EDRS 65p.

*STUDY GUIDES, *DISTRIBUTIVE EDUCATION, *CREDIT, *RETAILING, HIGH SCHOOLS, *INDIVIDUAL INSTRUCTION,

This study guide is for use by distributive education students who have career objectives in retail credit or in selling in stores with a large volume of credit business. The material was developed by two distributive education teacher-coordinators with specialized experience in the area of retail credit. Included are 40 assignments categorized as (1) Introductory Problems in Credit, (2) Reporting Agencies, (3) Types of Credit, (4) Sources of Credit Accounts, (5) Credit Interviews, (6) Acceptance of Credit Accounts, (7) Credit Authorization, (8) Credit Control, (9) Credit Sales Promotion, and (10) Collection. A short information section is included, but extra references needed to answer the assignment questions are (1) Brisco and Severa, "Retail Credit," (2) Phelps, "Retail Credit Fundamentals," (3) Richert, "Retailing Principles and Practices," (4) Duncan and Phillips, "Retailing Principles and Methods," (5) "World Book," Volume D, and (6) Walters, "Retail Merchandising." This document is available for $2.00 from Instructional Materials Laboratory, Distributive Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (MM)

ROOFERS

VT 002 795   ED 014 559
Roofing. Part 2. (Workbook).

Woltjes, William * and others
California State Dep of Ed, Sacramento. Bur of Ind Ed.
Pub Date -   67
EDRS PRICE MF-$1.00 HC-NOT AVAILABLE FROM EDRS   253p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *APPRENTICESHIPS, *ROOFERS. *ROOFING.

The technical information in this study guide was planned under the direction of the State Educational Advisory Committee for the Roofing Trade and written by an apprentice training specialist and others to be used as related classroom instruction in the apprentice training program for roofers. The units include (1) Built-up Roofing, Dampproofing, and Waterproofing, (2) Composition Shingling, (3) Rigid Roofing, (4) Blueprint Reading, (5) Estimating, and (6) Exercises in Estimating. Each unit is divided into topic assignments. A typical topic has an introduction of background information and a list of questions to be answered, a section of related material, a review of safety rules and precautions, a study assignment from a reference book, a list of questions for group discussion, a study guide of exercises to be completed, true-false questions to be used for student self-evaluation. The study of this 144-hour course by indentured apprentices on a group or individual basis is to be directed by a qualified journeyman of the trade. Photographic and line-drawing illustrations and supplementary instructional materials are in each topic. Supplementary art illustrations are provided in a separate section. Testbooks and final examinations are available to the instructor. This document is available for $2.50 from Bureau of Industrial Education, California State Department of Education, 721 Capitol Mall, Sacramento, California 95814. "Roofing, Part 1," VT 002 989, is also available. (HC)

VT 002 989 ED 014 562
Roofing. Part I. (Workbook).

California State Dep of Ed, Sacramento. Bur of Ind Ed.
Pub Date - 64
EDRS PRICE MF-$0.75 HC-NOT AVAILABLE FROM EDRS 140p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *ROOFERS, ROOFING, *APPRENTICESHIPS, ADULT VOCATIONAL EDUCATION, TECHNICAL INSTITUTES,

The technical information in this study guide was developed for use in related instruction in apprentice training programs for roofers. The material was planned under the direction of the State Educational Advisory Committee for the Roofing Trade and prepared under direction of the Bureau of Industrial Education. The units are (1) The Apprentice Roofer and His Trade, (2) Information for the Beginner Roofer, (3) Materials, Tools, and Equipment, (4) Roof Preparation, and (5) Kettles and Kettle Operations. Each unit is introduced by an explanatory statement and is divided into study topics. A typical topic has an assignment from reference material, an introduction of background information, a section of related information, and checkup questions for student self-evaluation. Photographic and line-drawing illustrations are included in the related information. Space is provided in the study guide index for recording topics completed. The study of the 144-hour course by indentured apprentices on a group or individual basis is to be directed by a qualified journeyman of the trade. A glossary of trade terms with definitions pertinent to the roofing trade is provided. Recommended supplementary instructional materials for the apprentice and the classroom library are listed. Testbooks and final examinations are available to the instructor. This document is available for $2.00 from Bureau of Industrial Education, California State Department of Education, 721 Capitol Mall, Sacramento, California 95814. "Roofing, Part 2," VT 002 795, is also available. (HC)

SALESMANSHIP
VT 002 054

Salesmanship Individual Study, A Course of Study Designed for Students Preparing for or Presently Employed in Distributive Occupations.
Karnes, James B., ed.

Missouri Univ., Columbia. Dept. of Industrial Education
Missouri State Dep of Educ, Jefferson City. Vocat Ed Div.

Feb66

DOCUMENT NOT AVAILABLE FROM EDRS 159p.

*DISTRIBUTIVE EDUCATION, INDIVIDUAL INSTRUCTION, GRADE 11, *STUDY GUIDES, *SALESMANSHIP, *COOPERATIVE EDUCATION,

Designed for individual study, this manual presents the related information necessary for salesmanship training in grade 11 in preparatory distributive education programs. The 180-hour course was developed by an advisory committee and an inservice teacher education class, refined by research assistants, and field tested by subject matter specialists. Each of the 20 assignment sheets contains information, references, and an objective-type test. Job training activities and related information are coordinated with assignments in 2-column form. Examples of subjects are (1) Personal Characteristics Important in Selling, (2) Store Policies, (3) Presentation of Merchandise, (4) Merchandising, and (5) Mathematics for Retailing. Progress Record forms for use by instructor, employer, and student are included. Mimeographed copies are available for $1.50 from Industrial Education, 103 Industrial Education Building, University of Missouri, Columbia 65201. A separate instructor's key (VT 002 057) is available for 50 cents from the same source. (SL)

SERVICE STATION ATTENDANTS

VT 000 208
Service Station Training Kit.

Texas Univ., Austin. Instructional Materials Laboratory
Pub Date - Apr66
DOCUMENT NOT AVAILABLE FROM EDRS 19 parts

TEXTBOOKS, *STUDY GUIDES, ANSWER KEYS, *REFERENCE MATERIALS, *DISTRIBUTIVE EDUCATION, *SERVICE STATION ATTENDANTS, *MOTOR VEHICLES, SERVICE STATIONS, HIGH SCHOOLS, POST SECONDARY EDUCATION, INDIVIDUAL INSTRUCTION, ADULT VOCATIONAL EDUCATION,

This kit, consisting of five assignment manuals and 13 reference booklets for students and a teacher's answer book, is for use in training the distributive education (DE) student for a career in the field of petroleum marketing, specifically in the service station. The assignment manuals are (1) An Introduction to the Service Station, (2) Operation and Maintenance of the Service Station, (3) Services Performed in the Service Station, (4) Principal Products Sold in the Service Station, and (5) Selling in the Service Station. Assignments in each manual consist of information or reference to other source and/or questions and projects. The assignment manuals and answer book were developed at the state level by materials specialists. The reference booklets, from private industry, are (1) Service Station Safety, (2) Know Your Motor Oil, (3) How to Sell Motor Oil, (4) Battery Service Manual, (5) Champion Spark Plug Automotive Service Manual, (6) Regulation and Charging Circuit, (7) The Ignition Circuit, (8) The Cranking Circuit, (9) Which Way Am I Going, (10) How the Wheels Revolve, (11) Optics and Wheels, (12) Facts About Purolator Oil, Air, and Gas Filters, and (13) A Guest in the House. This kit is available for $19.95 from Instructional Materials Laboratory, Distributive Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (MM)

SHEET METAL WORKERS

VT 003 119

Sheet Metal, A Study Guide and Progression Record for Sheet Metal Students in a Cooperative Training Program. (File, no. 324).
Alabama Univ., University. Dept. of Trade and Ind. Educ.

Nov65

DOCUMENT NOT AVAILABLE FROM EDRS 68p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *SHEET METAL WORKERS, GRADE 11, GRADE 12, SHEET METAL WORK, STUDENT RECORDS, *COOPERATIVE EDUCATION,

Question-type job sheets in this guide direct the student's related study in cooperative training programs. The material was developed by trade and industrial coordinators, subject matter specialists, and teacher educators. It was tested by use in high school programs. The 53 job sheets are keyed to selected reference books but the coordinator may supplement the student's study with additional material. Completed job experiences and related readings are to be recorded on the job sheets. Examples of jobs are Prevent Accidents in the Shop, Flange Edges, Measure with Micrometer Calipers, and Solve Sheet Metal Problems with Equations. Trade analysis record forms for teacher and student use are provided for recording composite job performance and reference readings during the 2-year program. The material was developed for grade 11 and grade 12 students in area vocational and comprehensive high schools. This mimeographed document includes a bibliography and a student equipment list. This document is available for $1.25 from Trade and Industrial Education, Box 2847, University, Alabama 35486. An answer book is available from the same source for 75 cents. (HC)

VT 000 789
Supervised Study Guide in Sheet Metal.

Lindsey, W.C.
Texas Univ., Austin. Dept. of Industrial Education
Texas Education Agency, Austin. Industrial Educ Div.
Pub Date - Mar66
DOCUMENT NOT AVAILABLE FROM EDRS 109p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *SHEET METAL WORKERS, *SHEET METAL WORK, GRADE 11, GRADE 12,

This study guide is for use by employed students in 11th and 12th grade or post-secondary courses in sheet metal. It was developed by an instructional materials specialist and an advisory committee. Assignment sheets cover (1) Tools and Equipment, (2) Safety Factors and Care of Equipment, (3) Pattern Drafting Figures, (4) Parallel Line Development, (5) Radial Line Development, (6) Triangulation, (7) Short Method Pattern Developments, (8) Mathematical Problems, (9) Sheet Metal Hand Tools, (10) Sheet Metal Machine Tools, (11) Materials, (12) Seams and Edges, (13) Processing, and (14) Typical Installations. Each assignment sheet gives subject, aim, introductory information, references, and questions. The material is to be used by individuals under teacher supervision for 2-year part-time courses or 360 hours of directed study. The teacher should be a high school coordinator. Supplementary materials include a job and progress record form and a bibliography of required and supplementary references. "Unit Tests for Supervised Study Guide in Sheet Metal" (VT 000 791) and this guide are available for $5.00. An "Answer Book for Supervised Study Guide in Sheet Metal" (VT 000 790) also provides answers for the unit tests and is available for $2.40. These documents are available from the Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (EM)

VT 002 077
Sheet-Metal, A Course of Study Designed for Cooperative Part-Time Students Employed in Sheet Metal Occupations.

Karnes, James B.
Missouri Univ., Columbia. Dept. of Industrial Education
Missouri State Dep of Educ, Jefferson City. Ind Educ Sect
Pub Date - Jan67
MF AVAILABLE IN VT-ERIC SET 142p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *SHEET METAL WORKERS, *SHEET METAL WORK, HIGH SCHOOLS, JOB ANALYSIS, *COOPERATIVE EDUCATION, INDIVIDUAL INSTRUCTION,

This study guide is for student use in related occupational instruction for the sheet metal trade in high school cooperative education programs. It was developed by a committee of teacher coordinators and teacher educators from an analysis of the trade and has been field tested and periodically revised. The 18 assignment sheets are designed to facilitate individual instruction and contain introductory paragraphs to develop interest, explanations of the importance of the assignments, references, learning activities, and objective-type study questions. Representative titles are (1) Sheet Metal Fabricating Materials, (2) Sheet Metal Seams and Hems, (3) Measurement, Linear and Angular, (4) Layout Tools, and (5) Triangulation. Information sheets are provided on Fire Extinguishers, First Aid, Safety, and Establishing and Operating a Sheet Metal Business. The material is to be used by individual students under teacher supervision for 1 year of 180 days. The teacher should be a qualified coordinator or competent trade teacher, and the student should be in the eleventh or twelfth grades and employed as a cooperative education student in the sheet metal trade. Supplementary materials include a list of references, an analysis of sheet metal work, and progress records for use by the student, teacher, and employer. Answers to study questions are available in VT 002 058. This document is available for $1.50 from Industrial Education, 103 Industrial Education Building, University of Missouri, Columbia, Missouri 65201. (HC)

SHOE MERCHANDISING

VT 001 674
Shoe Sales Training Kit.

Texas Univ., Austin. Instructional Materials Laboratory
Pub Date - Sep66
DOCUMENT NOT AVAILABLE FROM EDRS 5 parts

*TEXTBOOKS, *STUDY GUIDES, *DISTRIBUTIVE EDUCATION, *MERCHANDISING, *SHOES, SALESMANSHIP, HIGH SCHOOLS, POST SECONDARY EDUCATION, INDIVIDUAL INSTRUCTION,

An assignment manual of 53 assignments and three informational reference manuals are for use in directed individual instruction by high school, junior college, or area vocational school distributive education (DE) students with a career objective in retail shoe merchandising. The assignment manual was developed by a DE teacher-coordinator with 15 years of experience in shoe merchandising. The reference manuals were developed by the National

Retail Merchants Association and the National Shoe Retailers Association. Some titles of assignments are (1) Housekeeping in the Shoe Department, (2) Handling and Running Stock, (3) Reading Sizes, (4) Displaying Shoes, (5) History of Your Shoes, (6) Shoe Construction, (7) Leather Finishes, (8) The Human Foot, (9) Use of Measuring Devices, (10) Steps in Fitting Shoes, (11) Attitudes of the Shoe Salesman, (12) Selling the Second Pair, (13) How to Handle Complaints and Adjustments, (14) The Merchandise Budget, (15) Buying to Meet Customer Demands, (16) How Shoe Styles Originate and Trends in Styling, and (17) Selling Canvas Footwear. The assignments include subject, page reference to manuals and/or summary information, questions, and projects. The kit is available for $12.50 from Instructional Materials Laboratory, Distributive Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. An answer book is available for $2.50 from the same source. (MM)

SMALL ENGINE MECHANICS

VT 000 226

Supervised Study Guide, Small Gasoline Engine Repair.

Dalrymple, L. T. * and others

Texas Univ., Austin. Dept. of Industrial Education
Texas State Dept. of Educ., Austin. Industrial Educ. Div.

Jul65

DOCUMENT NOT AVAILABLE FROM EDRS 117p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *SMALL ENGINE MECHANICS, *ENGINES, HIGH SCHOOLS, STUDENT RECORDS, *COOPERATIVE EDUCATION, INDIVIDUAL INSTRUCTION,

Information and assignment sheets are used in this guide to direct individual student study in cooperative education programs. The guide was developed by three coordinators and an advisory committee. The units of instruction are titled -- (1) Internal Combustion Reciprocating Engines, (2) Shop Safety and Precautions, (3) Hand Tools, (4) Types of Engines, (5) Basic Engine Parts, (6) Lubrication, (7) Cooling, (8) Ignition, (9) Fuel Systems, (10) Engine Accessories, (11) Servicing, (12) Trouble Shooting, (13) Routine Care, Maintenance, Storage, (14) Engines in Use, (15) Outboard Motor Fundamentals, (16) Drive-Unit Fundamentals, (17) General Maintenance, and (18) Service Fundamentals. Assignment sheets in each unit provide lesson subject, aim, introductory information, references, and study questions. Information sheets are used for material which is not available or which is not suitably presented in the references. Study of this material by area vocational or technical high school students is to be supervised by a related subjects teacher or teacher-coordinator. A progress record is provided for checking the student's progress through a series of planned work experiences and related technical study over a 2-year period. Required and supplementary references are listed in the bibliography. Unit tests (VT 000 228) are available. An answer book (VT 000 227) contains answers to the study guide questions and the unit tests. This document, with unit tests, is available for $3.15 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712 (HC)

SPORTS EQUIPMENT

VT 000 127
Sporting Goods.

Texas Univ., Austin. Industrial and Business Training
Texas Education Agency, Austin. Distr. Educ. Service
Pub Date - Nov65
DOCUMENT NOT AVAILABLE FROM EDRS 118p.

*TEXTBOOKS, *STUDY GUIDES, *DISTRIBUTIVE EDUCATION, *SPORTS EQUIPMENT, *MERCHANDISING, HIGH SCHOOLS, POST SECONDARY EDUCATION, *INDIVIDUAL INSTRUCTION,

The purpose of this manual is to provide directed individual instruction for high school, junior college, or area vocational school distributive education (DE) students with career objectives in sporting goods merchandising. It was developed by a DE coordinator with experience in the area. Information and 35 assignments cover the subjects (1) Fishing Tackle, (2) Golf, (3) Baseball, (4) Archery, and (5) Guns and Ammunition. Each assignment contains subject title, reference, explanation, questions, and projects. A dictionary of terms for each area, except baseball, is given. The study pattern can be extended by the student, coordinator, or employer to other lines of sporting goods. The manual is self-contained and is available for $4.00 from Instructional Materials Laboratory, Distributive Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (MM)

STOCKKEEPING

VT 000 141
Stockkeeping for Cooperative Part-Time Students in High Schools and Junior Colleges.

Burbrink, Pauline W.
Texas Univ., Austin. Dept. of Distributive Education
Texas Education Agency, Austin. Distr. Educ. Service
Pub Date - Jul65
DOCUMENT NOT AVAILABLE FROM EDRS 158p.

*TEXTBOOKS, *STUDY GUIDES, *DISTRIBUTIVE EDUCATION, *STOCKKEEPING, MERCHANDISING, HIGH SCHOOLS, POST SECONDARY EDUCATION, *INDIVIDUAL INSTRUCTION,

The manual was designed for use as directed individual instruction by distributive education students who have stockkeeping as one of their major duties. It was developed by materials specialists at state level to provide basic entry level training on the stockkeeping techniques and functions necessary to the merchandising operation. The manual consists of 16 assignments and an information section for each assignment. Subject matter areas include merchandising, buying, model stocks, stockkeeping, warehousing, protection of merchandise, and safety. Each assignment includes the subject matter title, reference assignment, questions, and/or projects. This document is available for $2.50 from Instructional Materials Laboratory, Distributive Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. An answer book (VT 000 142) is also available for $1.00 from the same source. (MM)

VT 000 171
Receiving, Checking, Marking.

Clarke, Margaret
Texas Univ., Austin. Ind. and Bus. Training Bureau
Texas Education Agency, Austin. Distr. Educ. Service
Pub Date - Mar65
DOCUMENT NOT AVAILABLE FROM EDRS 121p.

TEXTBOOKS, *STUDY GUIDES, *DISTRIBUTIVE EDUCATION, *MERCHANDISING, *STOCKKEEPING, HIGH SCHOOLS, POST SECONDARY EDUCATION, *INDIVIDUAL INSTRUCTION,

The manual is to be used for directed individual instruction by high school, junior college, and area vocational school distributive education students who begin their training in receiving, checking, and marking departments or who have an occupational objective of receiving department manager. The material was developed by a distributive education teacher-coordinator with experience in the merchandising area. The 40 assignments cover the subject matter in the information section -- (1) RCM -- the receiving department, its scope, importance, and opportunities, (2) Safety, (3) Receiving, (4) Checking, (5) Marking, (6) Distributing, (7) Reserve Stock, and (8) Returns to Vendors. Each assignment has lesson title, reference to information section, questions, and projects. A bibliography is included. An answer book (VT 000 172) is available. The manual is available for $4.50 from Instructional Materials Laboratory, Distributive Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. An answer book (VT 000 172) is also available for $2.50 from the same source. (MM)

TELEVISION CAMERAMEN

VT 001 464

Supervised Study Guide for Television Cameraman (Video-Camera Engineer).
Schreiner, Leo * Brown, Russell

Texas Univ., Austin. Dept. of Industrial Education
Texas Education Agency, Austin. Industrial Educ. Div

Jan67

DOCUMENT NOT AVAILABLE FROM EDRS 64p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *CAMERAMEN, *TELEVISION, HIGH SCHOOLS, *COOPERATIVE EDUCATION,

The related technical information in this guide is for use, on a supervised study basis, by juniors and seniors in a cooperative program in area vocational or technical high schools. It was written by two coordinators working with an advisory committee. The assignment sheets cover -- (1) The Cameraman, (2) Television Studio, (3) Studio Equipment, (4) Basic Optics, (5) Television Lenses, (6) Picture Composition, (7) Framing Techniques, (8) Techniques, (9) Panning and Tilting, (10) Tracking and Crabbing, (11) Other Camera Movements, (12) Rehearsals and Transmissions, (13) Lighting, and (14) Outside Broadcasts. Each assignment presents subject, aim, introductory information, references, and questions. A progress record form coordinates class and job experiences. A bibliography includes required and supplemental references. The guide is intended for use in 360 hours of directed study or a 2-year course on a part-time basis. Unit tests are available in VT 001 465 and answers to assignments and unit tests in VT 001 466. Both, with the guide, are available for $5.05 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 77843. (EM)

TOILETRIES MERCHANDISING

VT 000 139
Toiletries Manual.

Scott, Elaine * and others
Texas Univ., Austin. Ind. and Bus. Training Bureau
Texas Education Agency, Austin. Distr. Educ. Service
Pub Date - Jun65
DOCUMENT NOT AVAILABLE FROM EDRS 89p.

*TEXTBOOKS, *STUDY GUIDES, *DISTRIBUTIVE EDUCATION, *TOILETRIES, *MERCHANDISING, HIGH SCHOOLS, POST SECONDARY EDUCATION, INDIVIDUAL INSTRUCTION,

The manual is to be used for directed individual instruction by distributive education students in high school, junior college, or area vocational schools who have career objectives in the area of toiletries merchandising. It includes an assignment section developed by distributive education coordinators and an information section from the trade publication, "Chain Store Age." There are 29 assignments in three divisions -- Toiletries Department Operation, Toiletries Sales Promotion, and Selling Facts. Each assignment consists of subject title, reference to information section, explanation, application, and questions, This document is available for $2.00 from Instructional Materials Laboratory, Distributive Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (MM)

TELEVISION & RADIO REPAIR

VT 002 612
Radio and Television Servicing.

Mulder, J. M. * and others
Alabama Univ., University. Dept. of Trade and Ind. Educ.
File-1497.
Pub Date - Jul67
MF AVAILABLE IN VT-ERIC SET 140p.
*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *TELEVISION REPAIRMEN, *RADIO, TELEVISION, GRADE 11, GRADE 12, *COOPERATIVE EDUCATION,

This guide is for 11th and 12th grade student use in studying radio and television repair in high school cooperative education programs. It was developed by a statewide committee of trade and industrial education coordinators and designed by subject matter specialists and teacher educators from study guides originally produced in separate volumes for radio and television. The purpose of the manual is to serve as a record of progress for the on-the-job training and to direct the study of job-related information. The units of study are (1) Basic Electricity and Electronics, (2) Radio, and (3) Television. Each unit contains assignment sheets with study questions and references keyed to a bibliography. The questions are designed to teach the student how to study the literature pertaining to his occupation. Additional information is provided in seven sheets on topics such as the electron theory, transistor theory, and the color television system. The material is to be used by individual students under certified teacher supervision for 2 years or 360 hours. The mimeographed document contains a trade analysis and progress record, a bibliography, and supplementary references. This document is available for $2.25 from Trade and Industrial Education, State Department of Education, P.O. Box 2847, University, Alabama 35486. (HC)

VT 003 388

Radio and Television Servicing, A Course of Study Designed for Cooperative Part-Time Students Employed in Radio and Television Servicing.

Campbell, B.H. * Oxley, Vincent
Missouri Univ., Columbia. Dept. of Industrial Education
Missouri State Dep of Educ, Jefferson City. Ind Educ Sect
Pub Date - Jun67
MF AVAILABLE IN VT-ERIC SET 206p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *TELEVISION REPAIRMEN, *RADIO, TELEVISION, HIGH SCHOOLS, POST SECONDARY EDUCATION, *COOPERATIVE EDUCATION, OCCUPATIONAL CLUSTERS,

This study guide is for student use in the related instruction phase of high school or post-secondary cooperative or preparatory trade and industrial education programs with a job cluster focus in radio and television servicing. It was developed by a statewide committee of subject matter specialists and teacher educators and has been periodically revised during several years of field use. The content objective is to provide a guide for the study of the technical and related occupational information basic to an intelligent understanding to the trade. The 216 job skills and procedures and technical and related information topics are correlated in parallel columns with 37 assignment sheets which provide the student with the assignment, reference, and a series of true-false, completion, multiple choice, and listing or problem-type questions. The material is to be used by individual students under teacher direction for 180 hours. The teacher should be a qualified coordinator or trade instructor, and the students must be juniors in high school with a basic course in electricity and electronics. Supplementary materials include a list of references keyed to the assignment sheets and a training plan and progress record. An answer key for the instructor is available as VT 003 387. This document is available for $1.50 from Industrial Education, 103 Industrial Education Building, University of Missouri, Columbia, Missouri 65201. (HC)

VETERINARY ASSISTANTS

VT 002 303 ED 021 967

Veterinary Assistant. (Teachers Copy).

Page, Foy

Texas Agr. and Mechanical Univ., College Station
Texas Education Agency, Austin

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EDRS PRICE MF-$0.72 HC-NOT AVAILABLE FROM EDRS 486p.

*STUDY GUIDES, ANSWER KEYS, *VOCATIONAL AGRICULTURE, *VETERINARY SCIENCE, *VETERINARY ASSISTANTS, HIGH SCHOOLS, *COOPERATIVE EDUCATION.

This study guide was developed for use by male and female vocational agriculture cooperative education students, 16 to 20 years old, preparing to become veterinary assistants. It was designed by subject matter specialists on the basis of state advisory committee recommendations and refined after being tested in operational programs. Units, to be covered in 175 periods of 50 minutes, include (1) Introduction, (2) Office Management, (3) Kennel and Cage Management, (4) Assisting with Examinations and Treatments, (5) Man and Animal Health, (6) Principles of Disease Control, (7) Methods of Disease Control, (8) Sterilization and Disinfection Procedures, (9) Restraining Animals, (10) Professional Assistance, (11) Laboratory Aids, (12) Clinical Signs of Common Diseases, (13) Animal Nutrition, (14) Miscellaneous, and (15) Research Problems. Each unit includes information sheets and assignment sheets. Assignment answer sheets, topic tests, and test answer sheets are included in the teacher's copy. Textbooks, bulletins, and commercial data are recommended as supplements. The document is looseleaf. This document is available for $5.50 in limited numbers from Agricultural Education Teaching Materials Center, Texas Agricultural and Mechanical University, College Station, Texas 77843. (JM)

WARD CLERKS

VT 002 667
Training the Ward Clerk; Instructor's Guide.

Hospital Research and Educational Trust, Chicago, Ill.
American Hospital Association, Chicago, Ill.
Department of Labor, Washington, D.C.
DOCUMENT NOT AVAILABLE FROM EDRS.
Robert J. Brady Company, 130 Que Street, N.E., Washington, D.C. ($5.50).
Pub Date - 67 220p.

*TEACHING GUIDES; *HEALTH OCCUPATIONS EDUCATION; *WARD CLERKS; HOSPITALS; ON THE JOB TRAINING; *ADULT VOCATIONAL EDUCATION

This guide is for teacher use in planning and teaching a course of 60 hours plus on-the-job training to prepare high school graduates in a high school or junior college setting for employment as ward clerks. It was developed on the national level by professional consultants in nursing and medical records; testing in hundreds of health care institutions has resulted in its refinement. Introductory information explains a five-step teaching method and provides a pre-course and an instructional checklist. Lesson plans point up objectives, identify major topics and sub-topics, and suggest equipment and teaching aids. The format provides a column for instructor's notes. Subjects of the lessons are orientation, communication, working environment, patients and visitors, emergencies, clerical responsibilities, the patient's chart, patient-centered activities, relationships with other departments, medical terminology, and medical orders. Student should have an eight grade reading level. Supplementary materials available are 35 transparencies and 45 overlays keyed to each lesson. "Being a Ward Clerk" (VT 002 666), a student manual, parallels the document in format and content. (JK)

WELDERS

VT 001 671

Welding, A Study Guide and Progression Record for Welding Students in a Cooperative Training Program. (File, no. 467-R).

Alabama Univ., University. Dept. of Trade and Ind. Educ.

Sep66

DOCUMENT NOT AVAILABLE FROM EDRS 98p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *WELDERS, *WELDING, HIGH SCHOOLS, *COOPERATIVE EDUCATION, STUDENT RECORDS,

The purpose of this guide is to provide direction for related study and a means for checking class and on-the-job progress of high school students in cooperative training programs. It was developed at the state level by a committee of trade and industrial coordinators. The contents include a 72-item trade analysis, safety regulations, a daily progress record, and study questions for each analysis item. The essay-type questions are keyed to five references. Units are General Information, Oxy-Acetylene Welding and Cutting, Arc Welding, and Tungsten Inert Gas Welding. The time required is 1 period per day for 2 years. The bibliography cites two supplementary references and two films. Answers (VT 001 652) are available for $1.50. Both this guide and the answer key are available for $3.25 from Trade and Industrial Education, Box 2847, University, Alabama 35486. (EM)

VT 004 945

Supervised Study Guide in Welding.

Cockrum, Jim
Texas Univ., Austin. Dept. of Industrial Education
Texas Education Agency, Austin. Industrial Education Div.
Pub Date - Nov67
DOCUMENT NOT AVAILABLE FROM EDRS. 131p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *WELDERS, *WELDING, GRADE 11, GRADE 12, *COOPERATIVE EDUCATION,

This supervised study guide was developed by a welding instructor, a training specialist, and an advisory committee for use by students preparing for entry jobs as welding assistants. The 31 assignment sheets are keyed to "Welding Skills and Practices" by Giachino, Weeks, and Brune, second and third editions. Each assignment sheet gives objectives, introductory information, references, and questions. Major content units are (1) Safety and Precautions for the Welder, (2) Metal Properties and Identification, (3) Oxyacetylene Equipment and Supplies, (4) Oxyacetylene Welding, (5) Oxyacetylene Brazing and Braze Welding, (6) Oxyacetylene Cutting, (7) Alternating Current Arc Welding Equipment and Supplies, (8) Alternating Current Arc Welding, (9) Direct Current Arc Welding Equipment and Supplies, (10) Direct Current Arc Welding, (11) Special Welding Processes and Applications, (12) Welding Symbols Used on Drawings, (13) Gas Shielded Arc Welding, and (14) Welding Shop Equipment. The course was designed for 360 hours of instruction under a qualified vocational coordinator for employed junior or senior high school or technical institute students. A brief reference list and a job and class progress record form are included. This document and "Unit Tests for Supervised Study Guide in Welding" are available for $5.45 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (EM)

X-RAY TECHNICIANS

VT 000 235

Supervised Study Guide in X-Ray Technology.
Lovelace, Bill

Texas Univ., Austin. Dept. of Industrial Education
Jan66

DOCUMENT NOT AVAILABLE FROM EDRS 165p.

*STUDY GUIDES, *HEALTH OCCUPATIONS EDUCATION, *RADIOGRAPHERS, MORPHOLOGY (BIOLOGY), ROENTGENIZATION, GRADE 11, GRADE 12, *COOPERATIVE EDUCATION.

The related instruction material in this guide was developed for cooperative training programs in area vocational or technical high schools. It was organized by a coordinator and reviewing committee from an analysis of the occupational content and experiences in supervisory activities. The major areas of study are (1) General Office Procedures, (2) Operation of X-Ray Machines, (3) Darkroom Procedures, (4) Techniques, (5) Positioning and Making Radiographs, (6) The Lower Extremity, (7) The Trunk and Vertebrae, (8) The Skull, (9) Contrast Examinations, (10) Urinary Tract, and (11) Special Procedures. Assignment sheets giving the lesson subject, aim, introductory information, references, and questions guide individual study by grade 11 and grade 12 students enrolled in the 2-year program for X-ray technician assistants. Study is to be supervised by a related subjects teacher or teacher-coordinator. Information sheets contain materials which are not available or not suitably presented in the references. Line drawing illustrations are provided. A progress record for use by teacher and student is included. The bibliography contains required and supplementary reference books. The study guide and unit tests (VT 000 237) are available for $4.35 from Industrial Education Department, Division of Extension, University of Texas, Austin, Texas 78712. An answer book for written assignments and unit tests is available for $1.55. (HC)

VT 001 876
X-Ray Technician.

Brooks, S. Hubert * and others
Alabama Univ., University. Dept. of Trade and Ind Educ.
Pub Date - 63
MF AVAILABLE IN VT-ERIC SET 73p.

*STUDY GUIDES, *HEALTH OCCUPATIONS EDUCATION, *RADIOGRAPHERS, MORPHOLOGY (BIOLOGY), *ROENTGENIZATION, HIGH SCHOOLS, *COOPERATIVE EDUCATION,

The guide was designed for student use in a 2-year, 360-hour cooperative high school program for training X-ray technicians. The material was developed by subject matter specialists and teacher educators and tested in high school programs. The guide includes a progress record form and 54 job sheets based on a trade analysis. Each job sheet gives study references and related questions. Some job sheet titles are--(1) Fundamentals of Magnetism and Electricity, (2) The X-ray Tube, (3) Characteristics of X-rays, (4) Recognize

Film, (5) Set Up Diagnostic Apparatus, (6) Take Radiograph of Hip, (7) Take Radiograph of Femur, (8) Take Radiograph of Knee, (9) Make an Upper G.I. Series, (10) Take Radiograph of Kidneys, Ureters, and Bladder, (11) Make a Radiograph of the Facial Bones, (12) Make a Bronchogram, (13) Make a Myelogram, (14) Make an Intravenous Cholangiogram, and (15) Ethics. The study guide, $1.25 each, and an answer booklet (VT 001 890), $1.00 each, are available from Trade and Industrial Education, State Department of Education, P.O. Box 2847, University, Alabama 35486. (PS)